

The Enigmatic Mr Graslin. A Rousseauist Bedrock for Classical Economics?

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Abstract. Drawing inspiration from aspects of the sensationist philosophy of the time and also the political philosophy of Jean-Jacques Rousseau, Jean-Joseph-Louis Graslin (1727-1790) — a fierce critic of Physiocracy — developed a remarkably coherent political economy based on a “three stages” theory of society, a labour theory of normal prices and distribution, and a concept of vertically-integrated sectors. He also put forward some ideas — the role of needs in the determination of market prices, a process of gravitation towards equilibrium, a *quid pro quo* theory of taxation — which attracted Turgot’s attention. Had it not been neglected, Graslin’s approach could well have formed a possible foundation for Classical economics — broadly defined as proposing a system of equilibrium “natural” prices based on the conditions of production, with market prices oscillating around them. In the present article I first explore Graslin’s basic motivation (section 2). I then deal with his “three stages” theory of society, which lies at the core of his analytical argument (section 3). Then follows an analysis of his principle ideas in respect of needs, wealth and value (sections 4), production equilibrium and prices (section 5), and finally public economics (section 6).

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We have a memoir of 436 pages destined to overturn economic doctrine in its entirety, and, to incite you to work, I very much feel to make you fear it have the prize. This work is not without merit nor without profundity. . .

Turgot to Dupont (3 January 1767)

Graslin's reputation never was what it should have been because he put so much emphasis upon criticism of the Physiocrats — which is in fact the best ever proffered — that his readers were apt to overlook his positive contribution.

Joseph Alois Schumpeter (1954 : 175)

1 A puzzle

The name of Jean-Joseph-Louis Graslin (1727-1790) is well-known to scholars engaged in the study of the development of economic theory in later 18th century France ; sometimes it is also cited in textbooks. His body of work is not however extensive and consists of only three texts, all written and published during the years of “high theory” 1765-1768 (see also Dubois 1911, Faccarello 2008, Goutte 2008, Orain 2008a). They are :

(a) a polemical correspondence with some Physiocrats — in particular Nicolas Baudeau (Graslin 1767-68). This was first published in different journals in 1767-68 and partly republished twice as a book (1777, 1779). This polemic arose from Graslin's critique of an aspect of *L'Ordre naturel et essentiel des sociétés politiques* (1767)¹ by Pierre-Paul Le Mercier de la Rivière : the correspondence was initiated before the publication of Graslin's book the same year ;

(b) one book (Graslin 1767), *Essai analytique sur la richesse et sur l'impôt*, resulting from Graslin's participation in a competition organised by A. R. J. Turgot and the Société Royale d'Agriculture of Limoges on the ultimate effects of “indirect taxes” (in the Physiocratic sense) : Graslin did not get the prize but he was awarded a “special distinction” for his contribution, most probably because Turgot was favourably impressed by his submission ;

(c) a short pamphlet (Graslin 1768), known as his *Dissertation de Saint-Pétersbourg* ; this is Graslin's contribution to another competition, organised by the Société d'Économie et d'Agriculture of Saint Petersburg, on the ques-

1. Graslin's critique deals with an example in which Le Mercier de la Rivière illustrated the Physiocratic idea that agriculture is the unique source of *produit net*.

tion of the desirability of peasant private property in land. His submission failed once more to win the prize, but he was awarded an “honourable mention”.

Nevertheless, despite positive assessment of his work by both Turgot and Schumpeter,² Graslin’s position in the history of economic thought is rather curious. The secondary literature on his work only amounts to a couple of books and articles, most of them published a long time ago.³ Moreover, and more strikingly, there is no agreement on the theoretical significance of his writings, nor on what his contribution really was. Schematically, only the anti-Physiocratic aspects of his publications are usually mentioned, while his own positive theoretical contributions are either neglected, or dealt with elliptically. The case of Schumpeter is particularly striking in this respect : he criticised commentators for having neglected Graslin’s work, but he himself failed to say anything very precise about the arguments that Graslin put forward (Schumpeter 1954 : 175). Hence Graslin is for the most part seen as a mere “precursor” of the many important authors who succeeded him (Faccarello 2008), a notably inadequate perspective.

This state of affairs can probably be blamed on the rather obscure style of the author. His book is not easy to read ; and this is in part due to his use of an unusual and idiosyncratic vocabulary. In some respects the Physiocrats were in a similar position : economic terminology and language were still in flux at that time. But Graslin’s style and concepts were adopted neither by the Physiocratic authors whom he criticized, nor by the opponents of Physiocracy, with the result that his writings remained isolated and poorly understood.

Commentators have themselves contributed to this neglect and misunderstanding by focusing only on his celebrated 1767 *Essai analytique*, and occasionally also on his polemical correspondence with Baudeau ; whereas his 1768 pamphlet has largely been ignored. This lack of interest is unfortunate since, in my opinion, the *Dissertation* provides a key through which his ideas might be properly understood. Here Graslin’s particular approach stands out quite clearly without being swamped by a flood of anti-Physiocratic polemical arguments. It therefore comes as no surprise that for most readers, whether these

2. Turgot (1767 and 1769 : 88) was of course also critical.

3. There is however presently a revival of interest in Graslin’s work : see Orain (2006, 2008b), Faccarello (2008), Goutte (2008) and Klotz (2008).

be his contemporaries or later commentators, his ideas have remained obscure or incomprehensible, and his system regarded as basically flawed.⁴

The question therefore remains : who “really” is the enigmatic Mr Graslin ? What was his “message” ? The recent contributions by Orain (2006, 2008b) are of special interest here : they are the first serious theoretical attempt to provide a coherent view of Graslin’s writing. Notwithstanding the usual emphasis on controversies with the Physiocrats, the image of Graslin that emerges from this interpretation is rather “modern”, aware of the capital/labour relationship and seen from a Walrasian perspective. The interpretation I propose in the present paper (see also Faccarello 2008) offers an alternative. In particular, the importance I attach to the *Dissertation de Saint Pétersbourg*, on the one hand, and to the philosophical contextualisation of Graslin’s ideas on the other, and the exclusive emphasis I put on Graslin’s positive theoretical approach, led me to quite different conclusions.

This paper shows that Graslin’s writings embody a framework whose originality should by rights lend him greater prominence among the economists and *philosophes* of the time. Drawing inspiration from aspects of the sensationist philosophy developed by Condillac, Bonnet and Maupertuis, and also the political philosophy of Jean-Jacques Rousseau,⁵ Graslin developed a remarkably coherent political economy based on a “three stages” theory of society, a labour theory of normal prices and distribution, and a concept of vertically-integrated sectors. He also put forward some ideas (the role of needs in the determination of market prices, a process of gravitation towards equilibrium, a *quid pro quo* theory of taxation) which attracted Turgot’s attention, despite there being one important shortcoming : Graslin’s lack of understanding of the concept of capital. Moreover, had it not been so neglected, Graslin’s approach could well have formed a possible foundation for Classical economics — broadly defined

4. This latter accusation is lent support by the fact that his critique is founded upon a gross misunderstanding of a key Physiocratic concept, arguing that the Physiocrats mistakenly equated wealth with the net product of the land.

5. I disregard here the possible influence of Locke’s writings, for which there is no decisive evidence.

as proposing a system of equilibrium “natural” prices based on the conditions of production, with market prices oscillating around them.⁶

In the following pages I shall first of all explore Graslin’s basic motivation (section 2). I will then deal with his “three stages” theory of society, which lies at the core of his analytical argument (section 3). Then follows an analysis of his principle ideas in respect of needs, wealth and value (sections 4), production equilibrium and prices (section 5), and finally public economics (section 6).

2 Graslin’s approach

Unlike many contemporary authors who refused to recognize the new domain of political economy that the Physiocrats claimed to have created, Graslin enthusiastically welcomed the “science of political economy”, or “economic science”. He began his book by declaring that this science was “the most important of all sciences because its object is the power and happiness of nations” (Graslin 1767 : 1) — paraphrasing Pierre-Louis Moreau de Maupertuis’s “Éloge de M. de Montesquieu” (Maupertuis 1755 : 416). He concluded his *Essai analytique* with the same reference, stressing the novelty presented by this field of inquiry : “I have sought to develop the principles of the science of wealth : a science so novel to us, says M. de Maupertuis, that it does not yet have a name” (Graslin 1767 : 209 ; see Maupertuis : *ibid.*). The only point he opposed was an equivalence (in the understanding of his contemporaries) between “economic science” and “Physiocracy” ; he accordingly refused to adopt the position of an “anti-economist”.

I tell you that *anti-Économiste* is not the correct word, and one should say *anti-Quénéiste*, *anti-Miraboliste*, for one can oppose particular opinions on economic science without becoming an enemy of this science. (Graslin 1767-68 : 29-30)

Graslin (like the Physiocrats) does not however claim that the new science is an autonomous field of study, entirely separate from the more traditional spheres of morals and politics. On the contrary : the dedication to his book

6. It is interesting to note that in the course of the controversy over Graslin’s 1767 book, an anonymous article articulated an important move in the emergence of the theory of differential rent. See [Anonymous] 1768 : 194ff and Van den Berg 2000 : 191ff.

described his studies as belonging to “political philosophy” — but a political philosophy enlightened by Cartesian reason. This was supposed to confer a high level of certainty upon the arguments put forward by the new science : “Economic Science, if based on its true elements, is susceptible of exact and precise reasoning, just as in the Mathematical Sciences” (Graslin 1767 : 37n).

2.1 In the background : Sensationist philosophy

The problem is of course the identification and elaboration of these “true elements”, avoiding moreover the problems which this reference to mathematics can engender — a reference intended to emphasize the need for rigorous analytical argument. Graslin warns of the danger of succumbing to the idea that a high degree of certainty is achieved when a discourse is based purely on numbers and statistics — a dangerous illusion inherent in almost all Physiocratic writing. Statistics lacking the support of incontrovertible theoretical definitions and arguments are at once meaningless and misleading. This point is clearly emphasised in the discourse with which *Essai analytique* opens :

It is thought that, to lend weight to modern opinions, it is enough to prop them up with calculations ; but this is mistaken. Calculations are merely arguments made explicit by means of signs which one manipulates. But just as the more exact arguments are not conclusive if they are not based on clear principles, the more exact calculations do not prove anything if they are not the consequence of some truth which is already known. Hence where scientific matters are concerned, to calculate is nothing less than to combine abstract signs in accordance with a given law ; it is a shorthand method for finding the results of principles which are precisely analysed ; it compares the relationships of quantities embodied in things ; relationships which calculation assumes to exist, but which it does not create. (Graslin 1767, Dedication ; see also 1767-68 : 5)

This methodological statement was a clear signal to Graslin’s contemporaries : reference was indeed made to sensationism. The important arguments made by Étienne Bonnot de Condillac during the previous two decades in *Essai sur l’origine des connaissances humaines* (1746) and *Traité des sensations* (1754) were by this time quite familiar. All knowledge derives from the sensations of the external world that we experience ; we cannot know the (hypothetical) ultimate nature of things, only the relationships existing between

them ; and any science is a science of signs — “une langue bien faite” according to a celebrated phrase by Condillac — which depends upon accurate definitions established by the application of analytical method.

The very title of Graslin’s book refers to this by using the phrase “essai analytique”, and we shall see below how this is worked out in Graslin’s theory. For the time being, we must note that Condillac is not the only author to whom reference could be made. Maupertuis, whom Graslin cites approvingly, also developed this approach in some of his writings — especially in his celebrated philosophical essays : *Essai de philosophie morale* (1749) and *Lettres sur différents sujets* (1753). But note should also be made of the famous naturalist and philosopher from Geneva, Charles Bonnet ; and it is not without interest that his principal ideas,⁷ in some respects close to those of Condillac, were published in 1760 under the title *Essai analytique sur les facultés de l’âme* — Graslin being, to my knowledge, the only philosophe to use the same phrase, “essai analytique”, seven years later.⁸

2.2 In the foreground : Jean-Jacques Rousseau

There was another contemporary author who exerted an important influence on Graslin : Jean-Jacques Rousseau. This is not so obvious if we only pay attention to the 1767 book and the 1767-68 exchange with Baudeau, as almost all commentators have done. It is however quite apparent in the *Dissertation* where Graslin refers to “a Modern philosopher” in such a way that the allusion could not be misread :

A Modern philosopher asserts that, following the order of nature, land does not belong to anybody and the fruits belong to all. (Graslin 1768 : 115)

This is a clear reference to the famous first paragraph of the second part of Rousseau’s *Discours sur l’inégalité* (1755), in which we can read : “you are lost

7. Bonnet also published an *Essai de psychologie* five years earlier (Bonnet 1755).

8. According to the catalogue of the Bibliothèque nationale de France (BnF), only one book was published before Bonnet’s treatise with “essai analytique” in its title : a technical book, *Essai analytique sur les eaux de Bousang*, by J. Lemaire (1750). From the 1780s on, however, the phrase was sometimes used in titles of technical as well as political books — the *Essai analytique sur les lois naturelles de l’ordre social* (1800) by Louis de Bonald, who refers to Bonnet, being the most celebrated.

if you forget that the fruits are everyone's and the Earth no one's." (Rousseau 1755 : 161) We know how Rousseau, a few pages further, asserted that the natural origin of the property of the land lies in cultivation i.e., in labour — the origin indeed of *any* property :

From the cultivation of land, its division necessarily followed ; and from property, once recognized, the first rules of justice necessarily followed . . . This origin is all the more natural as it is impossible to conceive the idea of nascent property in any other way than in terms of manual labor : for it is not clear what, more than his labor, man can put into things he has not made, in order to appropriate them. Since labor alone gives the Cultivator the right to the product of the land he has tilled, it consequently also gives him a right to the land, at least until the harvest, and thus from one year to the next, which, as it makes for continuous possession, is easily transformed into property. (ibid. : 169)

This is precisely the passage that attracted Graslin's attention. "The philosopher that I have just quoted", he writes in the *Dissertation*, "says that the right of the cultivator to the product of the land he cultivates gives him a right to the land, at least until harvest ; and so from one year to the next : and this continuous possession is easily transformed into property." (Graslin 1768 : 116). And he adds : "But this idea, while quite true, must be expanded and elaborated" (ibid.)

Rousseau's above statement thus forms the starting point of Graslin's investigation. As will be seen below, the development of the basic idea of a legitimate right to property founded on labour — labour is "the only legitimate title which allows men to share in the recurring benefits of nature" (ibid. : 125) — prompted reflection on the various ways in which the productive organization of society could be arranged so that it might be in conformity with distributive justice : a subject with which Rousseau, investigating the origin of inequality, does not deal. But it also had to be shown that the realization of distributive justice does not necessarily conflict with productive efficiency, and that both requirements can indeed, under certain circumstances, be jointly satisfied.

2.3 Three methodological issues

Some other textual allusions to Rousseau can also be found in Graslin's work. The most important are methodological. I will deal here with three of them.

The first involves the method Rousseau adopted in his inquiry into the origin of inequality. Probably inspired by Condillac's very striking approach — the famous statue in his *Traité des sensations* — Rousseau declared that the only correct way to begin his inquiry was to study the very nature of man, “setting aside all the facts” :

Let us . . . begin by setting aside all the facts, for they do not affect the question. The Inquiries that may be pursued regarding this Subject ought not be taken as historical truths, but only for hypothetical and conditional reasonings ; better suited to elucidate the Nature of things than to show their genuine origin, and comparable to those our Physicists daily make regarding the formation of the World. (Rousseau 1755 : 132)

Graslin makes a similar statement. To provide a general answer to the question posed by the Société Économique of Saint Petersburg, he writes :

I understood that the question required more philosophical investigation and that its true solution depends on principles that are not confined to any time or any place. Therefore I set facts aside . . . in order to look into the very laws of nature for principles which should be as permanent as is nature. (Graslin 1768 : 112)

The second important methodological aspect concerns the judgment that we can form about the evolution of societies. We know how Rousseau in his two *Discourses* — on the effects of the sciences and arts on the mores (1750) and on the origin of inequality (1755) — forcefully denounced all of the negative effects introduced by civilisation into society, and the degree to which he seemed to praise the “noble savage”, being immediately accused by all and sundry of proposing the unrealistic policy of a return to a state of nature! Rousseau of course condemned this gross misinterpretation of his thought, and always insisted that, once an evolutionary development had occurred, return to a previous order of things was an impossibility. One can only accept the fact of such an evolution and seek to adapt to the present state of things, which

is feasible since nature always offers us, together with the causes of evil, the means to render them tolerable. The remedy lies already in the evil (Starobinski 1989).⁹ Are mores corrupted by sciences and arts? It is impossible to restore them to their original simplicity and purity : but sciences and arts give us the means to make the corruption tolerable.

It is with sorrow that I shall state a great and fatal truth. . . . never has a people, once corrupted, been known to return to virtue. You would in vain aspire to destroy the sources of evil ; . . . in vain even return men to their first equality . . . : their hearts, once spoiled, will be so forever . . . When the sickness is incurable, the Physician administers palliatives . . . Wise legislators ought to imitate his prudence ; and since, with sick Peoples, they can no longer adopt the most excellent polity, they should at least give them, as Solon did, the best they can tolerate. (Rousseau 1751 : 50-1)

Graslin's approach is the same. Any evolution is irreversible, and the evil it brings with it can only be cut short by the remedies that this evolution itself always generates — and conversely, whenever an evolution is positive, it also entails some powerful negative element : we shall see some example below. It is interesting to note in this perspective how Graslin speaks of Gabriel Bonnot de Mably, Condillac's brother and himself a well-known political philosopher. Mably was struggling against Physiocratic free trade policy and proposed a return to a more simple society based on virtue and pure mores — following the example of Greek and Roman antiquity. Referring to Mably's *Entretiens de Phocion sur le rapport de la morale avec la politique* (1763), Graslin declares himself an admirer of “this masterwork of the wisest and most sublime politics” (Graslin 1767 : 191), and to be mindful of the “only true politics” of a return to pure mores and virtue. But he immediately emphasises that these ideas are unfortunately only “fruitless speculations” and that their implementation would entail “insuperable difficulties” (ibid.).¹⁰ And then, paraphrasing Rousseau :¹¹ “The Legislator of Athens said that he gave his fellow citizens not the best possible laws, but the best they could tolerate” (Graslin 1767 : 198).

9. This attitude was also that of some Jansenist thinkers one century earlier, such as Pierre Nicole and Jean Domat (see Faccarello 1986 : 26-7).

10. Condillac's attitude vis-à-vis his brother's ideas is very different : see Orain 2003.

11. The reference to Solon is of course not uncommon at that time. But here Graslin, as can be seen in the French original quotations, uses Rousseau's words.

The third methodological issue concerns the judgment we can form on the state of things once an irreversible evolution has taken place. In the preface of *Discours sur l'inégalité*, Rousseau stresses the fact that the rules of natural right vanish with the destruction of the state of nature, and thus cannot be maintained in a state of society. However, they will be replaced by another set of rules which aim at the same objective :

... reason is subsequently forced to re-establish [all the rules of natural right] on other foundations, when by its successive developments it has succeeded in stifling Nature. (Rousseau 1755 : 127)

As Jean Starobinski rightly remarks, “the civilized man cannot live in conformity with natural right ; he must endeavour to be faithful to it on a basis of convergence or analogy. Reasonable motivations, the requirements of moral sentiment, tend towards the same aim (self-preservation, respect for the lives of others) as the spontaneous movement of nature. . . . One can say that for Rousseau the task of society is to preserve what it repudiates.” (Starobinski in Rousseau 1964 : 1299) As will be seen, likewise for Graslin, once the natural order is destroyed society can spontaneously find some kind of organization which leads to the same result — which preserves what is denied — but only given some particular circumstances.

3 A ‘three stages’ theory of society

3.1 The state of nature

In a state of nature, men are isolated from one another and do not form any kind of society. There is no private ownership of land, and the fruits that the earth spontaneously yields belong to all. Labour alone can break this initial indivisibility, and this is the only legitimate mode of appropriation. The right of property in land originates in the work of preparation, maintenance and cultivation of the land, lasting at least as long as the activity of the cultivator. Here each individual receives the fruits of his labour, and each cultivates only the area sufficient for his maintenance and that of his family : any additional cultivation would in fact be pointless, since everybody lives autarchically. Here, according to Graslin, is the “order dictated by nature”, the “natural state” of humankind ; and in this condition, the property of one person does not in any

way infringe the property of another. Graslin also lays emphasis upon a fact that seems obvious here, but will be of great importance for the elaboration of his theory : economic activity is given its purpose by human need. “Enjoyment”, he writes, “is the objective of the work of all people” (Graslin 1768 : 136) — in Rousseau’s words : “love of well-being is the sole spring of human actions” (1755 : 163).

This state of nature is not a state of society, and for the sake of simplicity Graslin even supposes that there exists only one need and thus one product, corn. Since all produce the same good there is no prospect of any regular connection between men. For this connection to be established at least two needs have to exist, and thus two goods. Graslin supposes that, in addition to corn, an implement for ploughing is made. But this is not of course enough for a regular connection to form among men and in fact Graslin first supposes (1768 : 125) that every cultivator produces the necessary quantities of the two goods. He supposes that everyone, on his own land, spends $\frac{3}{4}$ of his total working time on cultivation, and $\frac{1}{4}$ on the production of ploughing implements. The multiplicity of needs is therefore a necessary but not sufficient condition for men to form regular relationships, i.e. to form a society.

3.2 Division of labour

As Rousseau had already emphasised (1755 : 168-9) society first emerges when men begin to specialize in some branch of production, giving rise to a division of labour : “Metallurgy and agriculture were the two arts the invention of which brought about this great revolution. For the Poet it is gold and silver ; but for the Philosopher it is iron and wheat that civilized men, and ruined Mankind” (ibid. : 168). Producers, Graslin remarks, quickly notice the positive effects of specialization : dividing up work is more efficient and the same quantities of goods necessary to fulfil need can in this way be produced with less labour. According to him :

All men being obliged . . . to work personally in order to obtain the objects of their needs ; and each of them seeking to obtain more with less labour ; they soon understood . . . that, if each of them devoted himself to the production of one object, he would acquire more aptitude and ability, to the advantage of all. Hence the division of productive labour . . . This order directly derives from natural and

primitive law, because each only labours — and more profitably — for his own well-being. (Graslin 1767 : 97)

Graslin lays emphasis on this point, both in *Essai analytique* (1767 : 80, 97) and, time and again, in his *Dissertation* (1768 : 117-8, 134, 137-8, 140). Consequently, taking his example, instead of each spending $\frac{3}{4}$ of their total labour time on the production of corn and $\frac{1}{4}$ on the production of ploughing implements, persons will specialize in one of the two kinds of productive activity and will finally form two productive classes : $\frac{3}{4}$ of the former cultivators will form the agricultural class, and $\frac{1}{4}$ that of craft industry.

The beneficial effects of the division of labour thus permit men to form a society. But what kind of society? This division of labour permits productive efficiency. But what about justice? For in the new state of things only one class — the cultivators — owns the land. To respond to these questions, Graslin develops a “three stages” theory of society, starting from a stage closest to the state of nature and ending with that most opposed to it, the “inverted state of society”, with, in between, an intermediary case : the “state of relationships”.

3.3 The perfect state of society

The first kind of society — called by Graslin “a full and perfect order of society” (1768 : 118) — is the extension of the natural order and results from a conscious collaboration between men. There is “a general and unanimous convention” (ibid.) which, prior to any production, regulates it according to the needs of all the people. This kind of social agreement or contract fixes the amounts to be produced by the different classes so that needs might be fulfilled — a generalization to society of the self-organization of an isolated man in a state of nature.

This represents a planned society in which all needs are necessarily fulfilled. This is why, even if land is owned only by some of the people, the cultivators, the rules of distribution are eventually the same as those in a state of nature : directly or indirectly, labour is still the only means for the appropriation of final products. Everybody “will have an equal right to production” i.e., everybody will get the same quantity of final product as before — which in Graslin’s first simple example will be corn :

... a general and unanimous convention, formed and maintained by the reciprocal interest of each contracting person, can only have for its basis the advantage of all ; an advantage which consists, for each individual, in providing his share of labour with a less effort, and retaining the same right to production. (ibid.)

In Graslin's eyes, this is an ideal state of society : he sometimes calls it simply "the state of society" (ibid.). It is however only possible — echoing Rousseau's *Contrat social* (1763) — "for a small number of associated men" (1768 : 118).

Note finally that this state of society might be difficult to maintain once the structure of production becomes more complex. The division of labour, permitting fulfilment of the prime need (as above) with less labour, also facilitates the emergence of other needs and other goods to meet them (ibid. : 138), therefore giving rise to a more complex organisation of production. This is reinforced by the emergence of technical progress, analysed by Graslin in terms of labour-saving inventions (ibid. : 128-133). This feature, inducing a process of growth, can represent an additional problem for the maintenance of the simple and ideal state of society. Graslin does not however explicitly draw attention to this point — he primarily analyses the processes of growth and technical progress in the context of the "state of relationships" — but instead lays emphasis upon another point, both analytical and polemical, which is in his eyes of material importance.

Suppose, he says, that the production of ploughing implements can in turn be subdivided into two activities : the production of raw material, and the manufacturing of the instruments. The structure of production is slightly more complicated, but at the aggregate level nothing changes because there is only one final need and thus one final good : corn. But suppose now that final needs multiply — with a parallel multiplication of specialized activities devoted to the cultivation and manufacturing of diversified means of production. How many classes will result from this process ? One has now, Graslin insists (ibid. : 135), to define a class in a rigorous manner. Production being directed to the satisfaction of final needs of the people, each of these needs will define a class :

... one necessarily must gather in the same class men — either cultivators or labourers [craftsmen] — who are directly or indirectly involved in the production of the object of each need. (ibid. : 136)

If, for example, the activity of a man directly or indirectly contributes to the production of several final consumption goods, then this activity will be divided in proportion and each fraction will be attributed accordingly to the different classes defined by these goods (ibid. : 140-1).

Graslin consequently sets up vertically-integrated sectors. We can now better understand his critique of the Physiocratic theory of *produit net* and his opposition to the tripartite division of society which lies at the basis of the *Tableau économique* — the “hieroglyphic Table” as he calls it (1767 : 82) —, a tripartite division which was in his view simply nonsensical (1768 : 137).

3.4 The state of relationships

A second kind of society emerges when the number of citizens is great and “a general and unanimous convention” is no longer possible. Decisions to produce such and such a good in such and such a quantity are now taken at the individual level of each producer and the social connection is established *a posteriori*, indirectly and unconsciously, through exchange of products in markets. This second kind of society is thus a market economy — what Graslin calls a “state of relationships between men” (1768 : 188), the term “relationships” meaning of course commercial or exchange relationships. In *Essai analytique* he also uses the phrase “univers commerçant” i.e., “commercial universe” (1767 : 135) — which of course sounds rather like the “commercial society” of the Scottish enlightenment — defined as “the whole set of men exchanging with each other the objects of their needs” (ibid.).

[In] a state of relationships and exchanges . . . each class, each individual gives the object of others’ need in exchange for the object of his own need; and . . . the interest of each in particular being that of receiving more and giving less, the interest of any one is certainly not the same as the interest of any other. (1768 : 142)

At this point, Graslin must perform a dual task : (i) he has to analyse these exchanges forming the basis of society, showing how they are determined and to what kind of equilibrium they lead ; (ii) he must also compare this market-based society with the “perfect order of society” that it replaces, and with the state of nature. As we shall see in the following sections, Graslin’s aim is to show that the “commercial universe” can be as just and efficient as the order

based on a previous agreement or convention, and therefore also as just and efficient the natural order. It is as efficient because the movements of prices in markets permits, as in the case of a convention-based society, the regulation of production such that it fulfils the final needs of citizens, hence leading to an economic and social equilibrium. It is as just, since the distribution of the final product between the members of society coincides with what would have resulted had society been regulated by a “general and unanimous convention” — or, even better, had men remained in the former state of nature. “There is no convention that each class or each individual can refer to; but the equality in the situation of individuals in the one or the other class will always arise from the very nature of things” (Graslin 1768 : 118).

Suffice it here to show that the order of relationships, in the principle of its institution, is only the replacement of the natural order in which each man received the objects of all his needs by means of his own labour; therefore . . . the works of men must balance between classes, so that each individual in all classes gets an equal portion of the general labour. [i.e., an equal portion of the final product] (ibid. : 138)

As before, therefore, society preserves what it denies. And, through the exchanges of the products, everything results as if the craftsmen were also landowners. “The right that labourers [craftsmen] acquire in the products of land through the instruments that they own, without which the others cannot do, effectively makes them co-owners of the land” (1768 : 125).

Finally, three points must be stressed. The first, to be dealt with in greater detail below, is that even if Graslin here portrays a market economy, the production structure is not based on capital. This type of economy is what Marx will later call “simple commodity production”, an economy in which all producers are independent and wage-labour does not exist.

Second, this state of relationships “can but very incorrectly be called a state of society in the full meaning of the word” (ibid. : 141) because the social body “is merely a combination of individual interests, very different from each other” (ibid. : 142). This is precisely the task of the new science of political economy : to show how these *a priori* diverging interests harmonize and form an equilibrium. This is also Graslin’s task : “The different relationships that

men have between them in this state must be elaborated and most thoroughly detailed.” (ibid. : 119).

A third important point : there is in the state of relationships another important difference with the previous ideal society : the emergence of the State as a tutelary power. We should note how Graslin introduces it : simply as a special activity, at the same level of all other activities, whose aim is to produce a specific good, “protection”, fulfilling a need expressed by the people (ibid. : 141). From this point of view, Graslin emphasises in the *Dissertation*, the State behaves like any other class and, like them, it has a private interest (ibid. : 142). Its aim is not therefore *a priori* to realize the general interest of society : true, it contributes to its realization, but in the same way that any other class does.

The protective power itself, while instituted for the safety and peacefulness of all, has its own private interest in the order of relationships. This interest is tied to the interest of all, in this sense it is essential for people that this power be in a condition to perform its function. But this can also be said of the interest of any class because, in the same way, it is essential for all other classes that each one in particular be in the condition to provide the object in its charge. (ibid.)

3.5 The inverted order of society

The social and economic order just outlined, suited to an extended State and based on market exchange, does not however yet describe the kind of society in which Graslin was living. To deal with the existing state of things Graslin introduces a third stage, the “inverted order” of society, in which some people can have an income and spend money without working : all kinds of rentiers, that is, owners of accumulated wealth.

How did this new stage of society emerge? The evolutionary process has this time nothing to do with the extension of community. In the *Dissertation*, Graslin alludes to the idea that it could be related to the characteristics of human nature, but then adds that this is not the subject of his investigation (1768 : 138). Regarding some other passages, however, the following sketch can be proposed.

We noted above that, even in the perfect state of society, a kind of selfish attitude was the rule : each man was trying to obtain a greater quantity of the product with less labour, and this gave rise to the division of labour. At the same time, pursuing the objective of improving his own well-being, each man was also improving the well-being of his fellow-citizens. The same self-interested attitude however engenders a disadvantageous evolutionary development, and eventually undermines the equivalent of the law of nature still prevailing in the first two states of society in one of two modes — planning or markets — and which at the same time allowed efficiency in production and justice in distribution. The law which implicitly stated that each could only receive from society the exact amount that he gave to it, based on the principle of self-interest,

... was destined, by virtue of this same principle, to be undercut because each sought to increase his claim on the wealth of others and to reduce his outlay, which was the original entitlement to this claim. Thousands of circumstances favoured this inequality in distribution, and in the end some found themselves in possession of claims on the whole without having contributed to it : for example, the owners of funds, real or fictitious ; I mean those who only bring to society their needs and their expenses. (Graslin 1767 : 99)

The owners of real or fictitious funds are, roughly speaking, the landowners — those who do not themselves cultivate their estate — and owners of money who lend it at interest. We must also note that the evolutionary development brought about by self-interest was promoted, as Graslin states (*ibid.* : 80), by the unequal fertility of land and/or by the fact that some good, being momentarily scarce, could be exchanged with greater profit. Force and violence must also have played a role : in the *Dissertation*, Graslin mentions slavery as an institution which, like idle landownership, destroys the just order of things (1768 : 143). But the invention of money is also listed by Graslin among the instruments of the transition (1767 : 80) : and it is probably, in his eyes, one of the most powerful factors of inequality between men (*ibid.* : 77n). Here we find once more the law of ambivalence : “... this is one of the most striking proofs that abuses almost always go, *pari passu*, with the best institutions.” (*ibid.*)

Money was at the beginning a beneficial institution — just as the selfish attitude was — in that it facilitated exchange and thus the well-being of all.

But it also eventually permitted the easy accumulation of wealth, and thus favoured a transition to the inverted, unequal state of society :

... not only rents in money but also rental charges in kind could only emerge from the invention of representative specie : ... the purchases of land do not have any other origin ... ; it is probably there the most potent cause of inequality between men. (ibid.)

The major negative consequence of this evolution is of course that, while the inverted order of society is still a market society regulated through prices and markets, it is no longer just — the different kinds of rentier sharing in production without giving anything in exchange, without working themselves. Income distribution is thus modified, and Graslin (1768 : 144ff) analyses this change as a negative shock in technical progress — a technical regress. Each producer, cultivator or craftsman, is now obliged to work more in order to fulfil his needs : he is forced to provide surplus labour. If he cannot work longer (ibid. : 146) the only solution for him is to spend less time on his own needs, to reduce them and/or fall into a state of indigence.

[W]hat a disorder, that the three quarters of men can hardly earn their living, while the labour of each of them is twenty times as great as it would be with an equal distribution. (1767-68 : 61)

This condition will necessarily be exacerbated by the extension of the right of the rentier to the product of the productive classes, and with the formation and propagation of new needs and commodities following from increased leisure (1767 : 24, 99-100). As a matter of fact, the production of all kinds of luxury goods will divert some labour from the production of the objects of more basic needs, thus presenting an even greater impediment to the satisfaction of producers' former needs ; while these producers will also develop new needs for luxuries, the satisfaction of which needs they will never be capable of fulfilling (ibid. : 100).

We know however that, in Graslin's perspective, as in Rousseau's, there is no going back to a previous order of things. The former stage in the evolution of societies — the "state of relationships" — was "either purely hypothetical, or has not existed for a long time ; it will never be seen again" (Graslin 1767-68 : 55). All that the legislator can do is manage the inverted order with a view to ameliorating negative economic and social effects.

Note that, despite some ambiguous formulations, the “inverted order” of societies is, like the “state of relationships”, a market-based society, but not a capitalist economy. Privileged people are rentiers. This is clearly stated by Graslin in *Essai analytique* when he tries to define more precisely the economic and social structure. Here he opposes the “property owners” to the “labourers” — but this opposition is that of the rentiers against all kinds of producers : cultivators, craftsmen, together with all those who, now, render services.

In order to generalize and simplify our reasoning, let us call *property owners* the citizen who owns either real funds such as land, town houses, country houses . . . to which we can add all kind of furniture, instruments . . . which can be rented out . . . ; or fictitious funds, such as annuities, and the *charges*¹² which yield a fixed income without labour; and let us call *labourers* all those whose wealth inheres in their person and consists either in their physical or intellectual skills, or in their mechanical labour, or finally in their personal services. (1767 : 177)

This is not to say that Graslin does not recognise the existence of entrepreneurs and wage labour, but there is no place for these categories in his scheme. Wage earners are assimilated to craftsmen. As for entrepreneurs, Graslin sees them as a kind of intermediary case between the rentiers, who do not work and only have *privilèges*, and the “labourers” who do not have any *privilège* and work. Only one portion of the revenue of entrepreneurs originates in their activity, and in this respect they are “labourers” : but the other portion results from *privilèges*. This is what Graslin maintains in his controversy with Baudouin. After the rentiers, he writes, “come the mixed estates, in between the privileged classes and the labouring classes; they perform various functions useful to society but their remuneration is greater than what they would receive if there were an equality in the sharing of tasks and rewards” (Graslin 1767-68 : 55). And, he goes on :

I put in this class the Entrepreneurs of Manufactures, of Trade, etc., because it is impossible to take up these professions without possessing an estate, i.e., external to the individual; and because there is moreover a very significant disproportion between their right to the whole [product of] labour and their personal activity,

12. In the French Old Regime meaning.

this right being either granted by privileges or generated by lack of competition. (ibid.)

Contrary to Turgot, who had just completed his remarkable *Réflexions sur la production et la distribution des richesses* (1766), Graslin simply does not understand the concepts of capital, profit and wage-labour.¹³

4 Needs, wealth and value

The new economic science is defined as “the relationships that things have between themselves as a consequence of those that men have between them” (1768 : 136).¹⁴ The most fundamental concepts are, in Graslin’s eyes, those of “need” and “wealth”.

4.1 Wealth and value

The *Encyclopédie* of Diderot and D’Alembert defines a need as “an unpleasant feeling caused by the absence . . . of an object. Hence : 1° we have two kinds of *need* ; some needs refer to the body and are called *appetites* ; the others to the mind, and are called *desires* ; 2° since they are caused by the absence of an object, they can only be fulfilled by its presence”. This definition conforms to the sensationist approach (see for example Bonnet 1760 : 135) and is also Graslin’s.

Needs are thus understood in a socio-physiological way. Men do have various needs which are classified according to their degree of priority : simple food and clothing come first ; they are necessary needs induced by physiological life. Then come less urgent needs, followed by the agreeable, the refined, the sophisticated, etc. (Graslin 1767 : 13). The closer needs are to the prime necessities of life, the more “superior” they are said to be (ibid. : 19) — and the more “inferior” they are, the further they are from such necessities. Their

13. In particular, he does not understand the Physiocratic concept of *avances* (see for example Graslin 1767 : 89, 106). Graslin, it is true, uses sometimes the word “capital” (e.g. ibid : 77n) but in the traditional sense of a money-capital yielding an interest.

14. This science is “an inquiry on the relationships men have between them and the objects of their needs” (1767 : epistle dedicatory). Graslin also writes of “the relationship between man and things, and things between themselves” (1767 : 2).

origin is of no concern : once a need is known, it must be fulfilled by the production of a specific object.¹⁵ Finally, in each state of society, characterized by a certain degree of economic development and a given social structure, a certain number of needs are known, and people seek to fulfil them.

Two basic assumptions are important here : (i) every human being has the same needs as his fellow-citizen : needs are felt in a uniform way ; and (ii) once a need is felt, it is fulfilled in an objective manner by a certain quantity of a good. Beyond this point of saturation, demand is price-inelastic : “That portion of an object which exceeds the extent of the need . . . has no value” (Graslin 1767 : 63n).¹⁶ As a consequence, exchanges are exchanges of surpluses : “Everybody will give what is for him superfluous in order to have what he needs” (ibid. : 14).

In this perspective, “wealth” has an obvious initial meaning. According to Graslin it is simply composed of all objects or services which can fulfil a need, whatever it may be. Two elements, however, make the picture more complex : the role of markets, and a second definition of wealth.

Let us first consider the role of markets. After characterizing wealth in such a very broad way, Graslin tries to make his definition more precise, introducing the concept of value and considering the link between wealth and value.

A first kind of value, he asserts, is “relative value”. This is simply the exchangeability of an object of a need, its relative price when compared to another object. The “fundamental principle”, Graslin writes, is that “need is the only cause of the value of things, which is their quality as wealth” (ibid. : 115 ; see also 1767-68 : 25). Value and wealth are closely-related concepts : “wealth” is something which can fulfil a need and has an exchangeable value.

Wealth is all the things destined for the satisfaction of our needs, whatever the nature of these things, and whatever their origin. Only need gives things their value, in other words their quality as wealth ; but the word value, being relative, expresses, for each

15. “If we were to call *needs* only those necessary and invariable appetites, we should then have to look for an expression which would be common to all appetites, of whatever kind” (1767 : 19n).

16. This hypothesis of a price-inelasticity of demand was of course widespread at that time, but, in the precise context of Graslin’s writings, we shall see below how it is susceptible to be explained on a philosophical basis.

object of a need, a relationship with all other objects of needs [...]. If therefore we would wish to have a precise and exact definition of wealth, I would say that *it consists of all the objects of need for which there exist relative values.* (1767 : 13 — Graslin's emphasis)

How are these relative values determined? This problem will be examined more thoroughly below. Let us accept for the time being a first simple answer given by Graslin : relative values depend on the interaction of supply and demand. They result “from the comparison of the different degrees of need in themselves, and of the more or less important difficulty in meeting them on account of the scarcity or abundance of the thing which is the object of each need.” (ibid. : 13)

Relative value, however, is not the only concept of value. Graslin sometimes tends to play down the reference to markets and introduces a second concept : “absolute value”. The reason for this is the existence of “objects of needs” such as air, water, and light possessing no cost of production, no scarcity and consequently no market and no relative value : they are free goods. But are they not also “real objects of need, and consequently wealth” (ibid. : 136)? The usefulness of these objects being without doubt, Graslin writes, they possess an “absolute value” : the “well-being” generated by satisfaction of the need.

It is only incorrectly that I call these things wealth after having restricted the meaning of this word to a value relationship of one thing with all others. These objects of need have only, for each man, an *absolute value*, without any relationship; for, besides the fact that every man possesses them constantly, these things ... are always in excess quantity with respect to the extent of the general need : the value of any individual portion is so modest that it is almost nothing; hence no comparison is possible from which a relation could result, forming the venal or relative value or the quality as wealth. (ibid. : 36n — Graslin's emphasis)

Water, air, and light are not the sole examples of such objects. Take, for example, the value of the trees in the forests of Cayenne, in the French equatorial colony of Guiana. “This element of wealth is like the air ... Their total quantity ... is in no proportion with the number of consumers, and ... is in a way infinite ...; and its value is accordingly absolutely imperceptible.” (ibid. : 36-7)

Of course, the quality of being an absolute value is not limited to non-produced objects : it is in fact a property of any element of wealth — this is what Graslin also calls “direct value” (ibid. : 37n). The quality of being a free good also depends on the circumstances. Consider again water, Graslin goes on : “in a boat on the open sea, or in deserts”, this good will have a relative value because it is then scarce, with a finite proportion between its available quantity and the extent of the need (ibid. : 37).

The analysis of free goods is not however Graslin’s sole theoretical refinement. So that he might render his analysis of relative values more complete he develops in some very striking passages (ibid. : 42ff) concepts of complementarity and substitutability.

We must distinguish things which are of different species, the collection of which makes one single object of need . . . (such as the stone, the lime, the wood and the slate, etc., which go into the building of a house ; such are also . . . the raw material and the industry of the labourer) ; from the things which, although of different nature, are only related to one part of the need, since they have one and the same use in fulfilling the need : such as the slate, the tile, the thatch, etc. (ibid. : 42)

For what concerns substitutable goods i.e., “things which are different but relate to the same portion of a need”, “the value of the one necessarily influences that of the other, just as a part — great or small — that we subtract from the whole influences the size of the remaining part” (ibid. : 44). In the case of complementary goods i.e., things “which are the objects of different parts of the same need”, their quantities vary in the same way and “the value of the one cannot have any influence on the value of the other” (ibid.).

4.2 A second definition of wealth and the postulate of invariance

As is not uncommon in the French language of the time, a word may have two related meanings. “Need” can for example indicate a desire for something, but also the fulfilment of this desire i.e., the satisfaction felt on the occasion of the act of consumption. The same is true for “wealth” : it may also mean the satisfaction generated by the fulfilment of the needs. This is important for an understanding of some puzzling passages, those pages in which Graslin put

forward what we can call his “postulate of invariance” — a principle which is, according to him, “one of the first and the most fruitful of the system of wealth” (1767 : 18n).

This postulate states that, at the individual and hence also at the collective level, the total amount of wealth is constant.

[A] man who would possess the objects of all the needs he feels, in quantities proportionate to his consumption, would be as wealthy as it is possible to be; and consequently, as wealthy as any other man who, having more needs, would also possess the objects of all his needs. As a consequence, either in a state of the most primitive simplicity where . . . there are only a few needs, or in a state of the highest development of sciences and arts where there is an infinity of needs, the objects of the sole existing needs are always the whole amount of wealth; and consequently the quantity of wealth is not greater in the latest era than in the first. (ibid. : 17)

This may look very strange to a modern reader. Graslin also states that the total amount of needs (ibid. : 17n), or of values (ibid.), is constant for an individual, as is his or her “well-being” — “well-being is always equal, either for the same man in two different circumstances or for two different men” (ibid. : 37n) — which of course seems an equally strange assertion. In the case of values, it must be noted that he is speaking of absolute value, which we know to be a synonym for satisfaction. And if we note further, as above, that “wealth” and “need” can both also mean “satisfaction” gained from final consumption, then the postulate becomes clear : it is the total amount of satisfaction that a person derives from the fulfilment of all¹⁷ his or her needs — the total well-being — that is said to be constant. The individual capacity for enjoyment, embedded in human nature, is given. Now that the meaning of the postulate of invariance is clearly stated, what of its relevance? Given that this principle is counter-intuitive, what kind of argument is put forward to support it?

The satisfaction of a need depends on the intensity with which this need is felt : which in turn depends on the number of needs a person feels. If this number is small, the intensity of each need is strong, as is also their satisfaction. If, on the contrary, this number is great, the intensity of each need is smaller,

17. “When I say that well-being is always equal, I think it unnecessary to observe that, by the well-being of a man, I only mean the total amount of goods which are goods for him, independently of their possession or deprivation.” (1767 : 37n)

and so is the satisfaction : “a greater quantity of goods, or objects of need, can but provoke the diminution of the energy of each of them or its share in the well-being (ibid.). This, according to Graslin, “explains” why the total amount of wealth is constant :

... in the same way, a greater quantity of the fractions of a unity diminishes the size of each of these fractions which, taken together, still form a unity and therefore have a constant sum. (ibid. : 17n)

But Graslin simply supposes here what he wishes to prove — he starts from a given amount, divides it alternatively with different numbers and “concludes” that, if, in each case, one adds the different fractions, the result is the amount that one started with. On the other hand, taking the total capacity for enjoyment to be unity is purely conventional, and does not constitute any kind of explanation of the above postulate — just as the choice of a numéraire does not prove that the value of a commodity is constant.

4.3 Graslin and Maupertuis

The problem therefore remains : why does he make this assumption ? Is it necessary ? What part does it really play in Graslin’s theory ? An answer will be proposed below. For the time being, it is enough to disclose the probable origin of the postulate : the philosophy of Maupertuis — especially the ideas proposed in two celebrated essays : *Essai de philosophie morale* (Maupertuis 1749) and “Lettre III. Sur le bonheur” (in Maupertuis 1753).

To put it briefly, Maupertuis puts forward an arithmetical statement of the good and evil that generates happiness or unhappiness. The *Essai de philosophie morale* defines the “happiness” (or “unhappiness”) of an individual as the resultant of the algebraic sum¹⁸ of the good and the evil that he or she felt : “Happiness is the resulting sum of the good which is left after all evil has been subtracted. Unhappiness is the resulting sum of the evil which remains after all good has been subtracted” (Maupertuis 1749 : 197). But how are good and evil apprehended ? By means of their durations, multiplied by their intensities :

18. Graslin also thinks in an algebraic way, for example when he states that the interest of the rentier, being in direct opposition to that of the general interest, “must be considered to be a negative quantity in the calculation of the public good” (Graslin 1768 : 151).

... the estimation of the happy or unhappy moments is the product of the intensity of the pleasure or pain, and the duration. (ibid. : 195)

While the duration can easily be measured, this is not the case for the intensity. But Maupertuis asserts that, even if an exact measure of intensity is lacking, everyone can nevertheless have an approximate idea of the different intensities and is able to compare and rank them (ibid. : 196). On this basis he then asserts in “*Sur le bonheur*” that for each individual — hence for a community — there exists a given quantity of happiness which does not greatly depend on good or bad circumstances :

Maybe everybody has not observed ... that for each person there is a certain sum of happiness whose dependence on good or bad fortune is slight. (Maupertuis 1753 : 225)

Maupertuis is of course aware of the paradoxical character of his proposition. The only justification, he thinks, can be found in introspection.

Think of the different states of the soul; examine whether, in the situations that we considered to be the happiest, we did not endure some pain from objects to which, in other less satisfactory situations, one would not have paid the least attention; whether, in situations that we feared to be the most unfortunate, we did not find resources, we did not gain some pleasures which, in our happiest times, would not usually have born down upon our soul. There is for each man a certain measure of satisfaction and sorrow that imagination always fills. (ibid. : 225-6)

In other words, every happy moment also entails a certain proportionate dose of unhappiness; and conversely. Of course, Maupertuis admits, there are exceptional circumstances with equally exceptional pleasures or pains; but they do not last (ibid. : 226) and the individual returns to a kind of normal permanent state (ibid. : 226-7).

One can however seek to go further and connect these aspects of Maupertuis’s ideas to the philosophical discussions which followed the publication of his 1749 essay — and also to the more recent interest in the evolution and role of the concepts of pleasure and pain from Locke to Bentham. Part of the discussion has focused on the nature of pleasure (see Guidi 1993, 2007). Suppose that pleasures and pains cannot be considered on the same level, in a

kind of “symmetrical” fashion, because a pleasure is seen as the extinction of a pain; suppose further that, as a consequence, pleasure logically stops when the pain disappears; then we arrive in substance at the position of one of the main protagonists in the debate: Pietro Verri, as expressed in his celebrated *Discorso sull'indole del piacere e del dolore* (Verri 1773). If then we replace “pain” with “need”, and “pleasure” with “satisfaction of a need” — which is in the logic of *Essai analytique* — we get Graslin’s hypothesis of the objective saturation of needs and the subsequent idea of an inelasticity of demand once the saturation point is reached.

Moreover, following this line of reasoning, the total quantity of pleasure/satisfaction is obviously limited by the quantity of pain/need. If all pains are relieved — if all needs are satisfied — then the outcome, in terms of well-being, is constant and . . . nil. The outcome is different from zero only if some pains are not alleviated, or not totally relieved; but, in this situation, the outcome is negative. Hence Verri’s — but also Maupertuis’s — “pessimism”. Here, searching for the greatest pleasure means the minimization of pain: we are dealing with algebraic values.

Of course, Verri’s essay was published after Graslin’s — but he did publish *Meditazioni sulla felicità* (Verri 1763) ten years before his *Discorso* on pain and pleasure. These remarks have nonetheless been introduced to show the terms and substance of some lively contemporary discussion: it is no wonder then that Graslin, who knew of and appreciated Maupertuis’s writings, could probably also take inspiration from them and subsequent debates to express his own ideas. In any case his hypotheses, when re-placed in their context, no longer look so strange as they had at first sight appeared. Consider the following excerpt, for example. Does it not represent a kind of echo to the ideas just outlined?

. . . the possibility of greater wealth does not exceed the extent of needs, whatever their kind and their number; . . . if expenditure remains below, the interval which remains unfilled is the measure of indigence; so that one would do as much for wealth by diminishing the number of needs as in extending the limits of expenditure.
(1767 : 107)

5 Production, equilibrium and prices

Graslin's analysis does not stop at this point. The notion of equilibrium has now to be introduced, and the concept of price must be reconsidered accordingly. It is here that, in a very striking manner, Graslin could be considered to be one source for the Classical approach.

5.1 Equilibrium

What happens at the individual level can be transposed to the aggregate level. It can also be said, asserts Maupertuis in his "Éloge de M. de Montesquieu", that "the real happiness of a society is the sum which remains after the deduction of all the individual misfortunes" (1755 : 404). Hence the problem for a legislator :

The problem that a Legislator must solve is the following : *A multitude of men being assembled, provide it with the greatest possible amount of happiness.* It is on this principle that all systems of legislation must be based. (ibid. : 407).

Graslin's aim is similar. As the wealth of anyone is at its maximum when all his or her needs are satisfied, the same will be true at the aggregate level. And when the needs of all citizens are satisfied and the supply of the various goods exactly meets the demand, society is at an equilibrium — the best possible situation it can reach.

The nation . . . is the collection of many different and even opposed interests because he who is an owner has to give something to the other who needs it. The wealth of the former lying in a greater scarcity of this thing, and that of the latter in its greater abundance, the wealth of a State can only be in the equilibrium of these two sums of wealth, in other words in the conciliation of these two opposed interests. In order to have greater wealth in the State, the thing must be in a quantity exactly proportionate to the extent of the need. And a State in which need and the different things that are their respective objects would exist in such an equilibrium would be at its maximum level of wealth. (1767 : 64)

We must however be aware of a logical consequence implied by this definition. If, for a given population, some needs cannot be fulfilled, totally or

partially, the resulting market equilibrium can only be suboptimal. The maximum degree of happiness in society cannot thus be reached in that “inverted order of society” where, as we know, labourers are inevitably in a state of indigence.

The above definition of a global equilibrium in a “state of relationships” allows us to return to a question posed in the previous section but for the time being left unanswered : that of the relative values of commodities. We accepted, on a provisional basis, their determination through the interaction of supply and demand. They fluctuate whenever the equilibrium is not reached — production is not planned, but results from individual producers taking their decisions independently from one another.

Now it is interesting to note that at the aggregate level Graslin calls the individual relative price “partial value”. And he contrasts this partial value of a commodity with the total value that the mass of this commodity possesses with respect to the mass of every other commodity in the economy. The total masses of the n commodities possess, Graslin states, a relative price which is supposed to be constant as long as needs and techniques do not change, whatever the real amount of commodities composing each mass. In other words, needs (and techniques) being given, the relative price of the mass of commodity i in terms of the mass of commodity j will remain the same, even if, for example, the production of commodity i suddenly doubles.

[P]rinciple : all the individual elements of one same thing, whatever their quantity, having for their object only one of the needs, have together the same value. This value . . . of the thing considered from the point of view of the species, and independently of the quantity of its individual elements, cannot change as long as needs are in the same proportion ; but the partial value of this thing must diminish absolutely with the increase in the number of its parts. (ibid. : 14)¹⁹

Here again Graslin seems to express his ideas in a somewhat surprising way. But all he does is “simply” state the following propositions : (i) for a given demand for total quantities of different goods and for given techniques of production, there exists a set of natural relative prices ; (ii) the fluctuations in the production of single commodities cause variations of the individual relative

19. See also for example Graslin 1767 : 15, 26.

values — the market prices — which themselves gravitate around the respective natural prices.

Let us examine these two propositions in turn. The argument is here stated in the context of the “state of relationships” : the case of the inverted order of society will be dealt with briefly at the end of this section.

5.2 Natural prices

Graslin’s first proposition concerning the existence of natural prices is rather obscured in *Essai analytique*, but is stated much more clearly in *Dissertation*. What are these natural prices? How are they determined? In order to answer these questions, let us go back to the first simple model put forward by Graslin and already noted above when the analysis of the division of labour was introduced (section 3). If in the natural order cultivators devoted $\frac{3}{4}$ of their labour time to cultivation, and $\frac{1}{4}$ to the production of “ploughing implements”,²⁰ the transition to a society will see the entire population eventually divided²¹ between two activities : $\frac{3}{4}$ of it remaining in agriculture and devoting all their time to cultivation, and $\frac{1}{4}$ working now in craft industry ; the two goods, corn and “ploughing implements”, are produced in the same total quantities as before — needs are the same — but the labour time provided by each producer is now reduced owing to the beneficial effects of the division of labour.

Remaining at the aggregate level, Graslin supposes the following exchange. Craftsmen, on the one hand, do not have any use for the tools they make : their whole production is destined for the cultivators. The latter, on the other hand, only give up $\frac{1}{4}$ of the production of corn in exchange, keeping $\frac{3}{4}$ of the corn produced. The exchange ratio between the activities is thus the following : *the total production of ploughing implements = a quarter of the production of corn*. This ratio is an equilibrium price : all the needs are satisfied ; there is no excess supply, neither of the final consumption good nor of tools ; and the process can go on forever. This ratio is also just : it allows everyone to obtain

20. Strictly speaking, in modern terms we have to suppose that these “ploughing implements” are in fact a kind of circulating capital (absence of fixed capital).

21. Note that, in this simple example, the two activities are subdivisions of a single vertically-integrated sector.

the same quantity of corn as before, when each citizen was also landowner and producing his circulating capital in his own account.

Now, the cultivators being in need of all the implements, and the labourers [craftsmen] being in need only of a part of the production [of corn], the exchange would take place in this proportion; and this exchange, in which a [sub]class seems to give all the fruit of its labour, and the other a part only, is of the most perfect equality ... , the unique object of the work of every man ... being to get an equal portion of the production [of corn]. (1768 : 119)

How are we to interpret this ratio? Graslin (*ibid.* : 125-7) develops an argument in terms of exchanges of equilibrium quantities of labour between the subclasses and a distinction, for each activity, between the labour employed “for itself” — i.e., in production for its own use — and the labour “which is only for relationship or exchange” (*ibid.* : 126). Here Graslin’s analysis is a bit tortuous, both because of the lack of any prior theoretical reference and because he encounters a difficulty when dealing with the presence, in agriculture, of means of production that are not produced in this sphere of activity (*ibid.* : 127).

But even if his mode of expression is unconvincing, the result is clear : the equilibrium exchange ratios between commodities are determined by labour values. Different goods exchange against each other according to the direct and indirect quantities of labour necessary for their production. This is the case in the example above. The ploughing implements are manufactured by $\frac{1}{4}$ of the total labour force (the level of employment in the craft industry), with no means of production other than labour. The corn is produced by $\frac{3}{4}$ of the total labour force (the level of employment in agriculture) using circulating capital itself produced by $\frac{1}{4}$ of the labour force. In terms of incorporated labour, the total quantity of corn is therefore worth four times the total quantity of ploughing implements — which gives the natural price noted earlier.

Of course, Graslin writes in a more general context, the various kinds of work are different. But these differences can be dealt with if the degrees of pain involved is taken into account : the different kinds of labour must thus be weighted according to their more or less painful character :

... he who is in charge of the less painful work, must have a greater quantity thereof. It is a compensation which results from the order

of relationships where the situation of a man can be neither better nor worse than that of any other. (ibid. : 134)

Finally, what is valid for the equilibrium quantities is also true for the single elements : “the parts of each [different] thing must exchange against each other in this same proportion” (ibid. : 127)²² — an assertion which is not to be taken literally²³ but which means that, once the natural ratios of exchange between total quantities are known, as well as these quantities, the natural prices of the individual commodities are also *ipso facto* determined.

Graslin then makes his analysis more complex : first by introducing a degree of labour-saving technical progress in one of the two subclasses of the simple model (ibid. : 128-133) ; then by subdividing each process into further activities (ibid. : 134) ; and eventually by multiplying the needs and thus dealing with classes proper (ibid. : 135ff) — the vertically-integrated sectors. As far as the calculation of natural prices is concerned, detailed analysis of the effects of a technical invention leads to the same result as before : equilibrium relative prices are labour values.²⁴ Likewise with the general rule that Graslin puts forward for the calculation of natural prices in the case of a multiplicity of needs and final goods (ibid. : 138-140).

If one wished to fix exactly the proportion in which these exchanges of labour, & of the fruits of labour, must take place between all classes it would be necessary to know the proportion of all the men who form a class to the total amount of men . . . The share of the fruits of the labour of all others that each class must receive will be in proportion to the number of men that it includes with respect to all men taken together ; & it would provide for each of the other classes a share of the fruits of its own labour in proportion to the portion that each class makes up of the mass of all men. (ibid. : 139)

22. In *Essai analytique*, Graslin expresses the same idea in the following way : “the objects of the different needs, considered in their specie, and leaving aside the quantity of their individual portions, relate proportionally by value in a manner conforming to the proportion between needs ; . . . the individual portions of these objects conform to the proportions of the global values of things” (Graslin 1767 : 26). He adds however : “but they have moreover value proportions peculiar to themselves and which originate in their scarcity or abundance” (ibid.). These second “value proportions” refer of course to market prices (see below).

23. It is instead to be taken literally if we understand “the parts of each [different] thing” as meaning “proportional parts”.

24. There are some problems with the arithmetic of these examples (see Graslin 1768, 2008 edition) but the general conclusion is not affected.

5.3 The gravitation of market prices

What happens when the effective supply of a good differs from that which is necessary to fulfil needs? The effective individual value of the good, determined by supply and demand, will differ from the natural price. It will fluctuate but, for given needs and techniques, price and quantity are supposed to eventually equal once again their natural values. How does Graslin describe this process of gravitation *ante litteram*? This process works through the mobility of the only factor of production : labour. And the principle which lies at the basis of this process is again the selfish hypothesis :

... men always [move] towards the activity which procures the greatest right to the work of others, either because of the intensity of the need or because of the scarcity of the object. (1767 : 98)

This is explained by Graslin in his *Dissertation* (1768 : 121-2).²⁵ Suppose that, for whatever reason, production of various goods is disrupted. The relative market prices of the commodities in excess supply fall, while the reverse happens for those in excess demand. People engaged in the first activities see the purchasing power of their commodity — “the right to the work of others” — diminish in terms of other commodities ; while the opposite occurs for those working in the activities related to the second case. Some labourers therefore move from the first activities into the second, production alters and the excesses in supply and in demand are reduced, thus prompting new and inverse movements in market prices. An equilibrium is eventually reached — a new “natural” equilibrium or the previous one, depending upon whether anything changed in needs and/or techniques.

The order that I present here is not fictitious ... It will always sustain itself through the sole law of relationships, because it will always happen that some of the persons in one class will move into another class where there is a greater advantage ; and, sharing this advantage, they will make it diminish for everyone ... This enduring liberty for each individual to move from one class into another whenever he anticipates therein a better situation ; and the disadvantage that always results for a class of its too great increase ;

25. Graslin liked Richard Cantillon’s ideas. It is not impossible that this process is developed from some ideas to be found in *Essai sur la nature du commerce en général* (see Cantillon 1755 : 14-5, 18).

would tend perpetually to place these two classes in equilibrium.
(ibid.)

In discussing this process Graslin considers a possible difficulty : in moving from industry to agriculture, labourers are supposed to find land. But what if it is all appropriated? His treatment is inconclusive.²⁶ The question of rent, here only implicitly posed, is not considered by Graslin.

Three final points are worth noting. In the first place, we can now understand the analytical role played by the hypotheses of the saturation of the needs and the “postulate of invariance” (above, section 4). The movements of prices in markets are simple to analyse in the above case ; these hypotheses simply ensure that, during a process of gravitation, prices tend towards the natural rates of exchange — even when labour-saving inventions allow the emergence and satisfaction of new needs.

In the second place, we must note that one factor may interfere with this process of gravitation : foreign trade, which is analyzed in *Essai analytique*. We know that, because of the hypothesis of the saturation of needs, the fall of the price of some commodities cannot increase their sales when an equilibrium situation is disrupted — while the increase in the price of some other commodities can provoke a fall in their demand.²⁷ Foreign trade can play an important role during the period of disequilibrium when the process of migration of labour readjusts the levels of productions : this gives the commodities in excess supply a market and allows those in excess demand to be imported, thus smoothing the process of transition. “The overabundance of commodities, even of first necessity, is, for an agricultural nation, only wealth because of the need of other nations : without this foreign need, the quantity which is in excess of the national need is absolutely without value” (1767 : 63) ;²⁸ which means that, in spite of the decrease of the market price, this excess of the commodity would be wasted, the demand for it being price inelastic.

26. “I suppose here, in truth, that the total amount of population will not exceed the quantity of productions that can be produced by the land : for, otherwise, this would create a great disorder, the consequences of which can neither be foreseen nor calculated.” (Graslin 1768 : 124)

27. This effect depends on the rank of the need the commodity is fulfilling.

28. See also Graslin 1767 : 66, 69. In other respects, Graslin’s ideas on foreign trade policy are traditional (see for example his system of subsidies and duties, ibid. : 196ff).

In the third place, we have to specify what happens in the “inverted order of society”. It has already been noted at the end of section 3 that the existence of rentiers prompts a deterioration of the condition of the labourers, who now live in a state of indigence. Markets are still regulated by prices ; but in addition to the fact that the outcome is of course no longer just, how does such regulation now function ? Graslin alludes only very briefly to this when dealing with the determination of prices and the process of gravitation. His verdict is to be found in his controversy with Baudeau (Graslin 1767-68 : 53-62).

He there analyses the case of an equilibrium disrupted by labour-saving technical progress. In the “state of relationships”, thanks to the mechanism of gravitation, this progress allows all the labourers to satisfy the same needs as before while using less labour, or produce for new needs that they had discovered. But “this is no longer the case today ; a barrier now exists between those whose wealth is reduced, through the workings of fate, solely to their labour, and those called *the rich* in the usual sense of the phrase” (ibid. : 56). In these circumstances, Graslin argues, the same process leads to the degradation of the producers’ situation. Because of the subsequent migration of labour to different activities, the labour-saving invention provokes an increase in the number of labourers in all branches (and an insufficient diminution in the branch where the invention was introduced). The result is, as Graslin stresses, “that their individual rights [to final goods] will be diminished, and will decrease until they are reduced to beggary” (ibid. : 57). This in spite of the fact that some labourers can prompt new needs among the rich by offering new commodities, thus creating new activities and diminishing excess supplies elsewhere.

It is not clear in Graslin’s text why such an outcome has to happen, and why the process of gravitation cannot have the same effect as before. We understand that the relative wealth of the rentier increases with respect to that of the labourers : technical progress probably happens in sectors producing goods consumed by rentiers alone, thus increasing the real value of rental incomes. The rentiers can also enjoy new luxury goods : the producers on the other hand cannot afford them and their poverty increases. But the emphasis that Graslin puts on the fact that competition between labourers must reduce them to beggary while on the other hand benefiting the rentier (ibid. : 60) appears to suppose something other than simply a movement of prices in the presence

of excess supplies of commodities. It suggests the presence of wage-labour in a labour market, a fall in real wages due to an excess supply of labour, and the idea that the creation of new needs and accordingly new commodities and new jobs are all insufficient to offset the negative impact of labour-saving technical progress. This is however never openly developed in the text, owing to Graslin's blindness to the relationship between capital and labour.

Note eventually that on this point, as on all others, Graslin's attitude is not backward-looking : just as it is impossible to revert to a former state of society, any attempt to stop technical progress or to prohibit the introduction of labour-saving inventions in an open economy is, he writes, vain because of the existence of competition from other nations (*ibid.* : 61-2).

6 Public economics

We have already noted that, for Graslin, the State originally arose simply as a branch of the overall division of labour, to provide for the need on the part of the people of safety and justice (section 3.4). From this perspective, Graslin insists, the State contributes to the production of wealth, and those who claim that the financing of the public activity implies a diminution of the citizens' wealth are simply wrong : "The need for protection, which is one of the most important needs of men in society, lends a genuine value to the protective power, which is accordingly a part of the wealth of the nation." (Graslin 1767 : 172).

Those who, directly or indirectly, work for the State hence form a class because they all contribute to the production of this service of protection : the public sector is, on this point, no different from any other activity. And, as for any other class, the right that the members of this particular class can have to the product of the labour of other vertically-integrated sectors is based "on the total number of men that the [tutelary] power employs for the functions entrusted to it" (Graslin 1768 : 141). As a consequence the natural price for protection is determined in the same way as any other natural price.

6.1 A *quid pro quo* approach to taxation

This price has some specific features which should be noted, the first being that it is paid as a tax.²⁹ Taxation is thus conceived by Graslin in the *quid pro quo* tradition : it is the equivalent paid for the services of the State (1767 : 25). “Taxes consist in the exchange of the element of wealth which is protection against the other items of wealth, according to the relative values of each” (ibid. : 173).³⁰ Moreover this is its unique function ; in particular, taxation can by no means be a corrective device for the distribution of income : “the aim of taxation cannot be to bring about some degree of equality in the wealth of people” (ibid. : 180).

But why is this price imposed upon citizens ? According to Graslin, one initial reason is that protection is a good for which there is no rivalry in consumption, and no possible exclusion in markets ; it is not possible to exclude from the benefit of protection those people who do not wish to pay the price but who at the same time feel the need for this public good. Here, like Turgot and Condorcet at around the same time (Faccarello 2006), Graslin perfectly sums up the free rider problem.

Observe that this exchange cannot be free like the exchange between all other objects of needs. . . . From the moment society is formed, each member is not free to contribute or not, nor to fix what he wants to give in exchange for protection ; because he is not free to either surrender this object of need, or be given less of it since all people enjoy it in common and indivisibly [. . .] ; and because nobody can be deprived of it when all others are enjoying it. And, as each citizen would find it profitable to receive without giving anything, no-one would hurry to participate passively in the exchange, since they would always be certain to be included in it actively. As a consequence a law must decide the amount that everyone has to give ; and this law is taxation. (1767 : 152-3)

There is also a second reason why the price for protection must be a tax. As a matter of fact Graslin considers people to have a psychological propensity to underestimate the strength of their need for protection, and hence the

29. On Graslin’s ideas concerning taxation, see also Seligman (1894 : 194-5, 243-5) and Orain (2006 : 13ff ; 2008b : 141ff).

30. Just taxation must follow the principles of exchange (see Graslin 1767 : 153).

price they should pay in order to fulfil it. This is firstly because people receive the services of the protection of the State without really knowing all the advantages they receive from such protection (ibid. : 154-5). Secondly, citizens underestimate their need for protection, because people “receive in advance the element of wealth they pay for through taxation” (ibid. : 173) — and this, in Graslin’s eyes, constitutes a significant difference with respect to an ordinary exchange in markets where one has first to pay the price in order to get the object (ibid. : 173).

These two reasons not only bring about an under-estimation of the need for public goods, but also, probably, the temptation to be — partially or totally — a free rider. People “believe that they give without receiving [anything in exchange], they only feel the privation and they suffer from it.” (ibid. : 155)

6.2 The requirements of just taxation

If societies were still in a “state of relationships” levying a tax in order to finance the public sector would have been an easy task. In fact, all the citizens would have been in a similar state of wealth, with roughly speaking the same needs, and would have paid approximately the same price — and it is in this context that Graslin stresses the *quid pro quo* approach, denying any redistributive role to taxation. In the “inverted order of society”, things are different. There are here very important differences in the levels of the citizens’ wealth, and the distribution of income is not just. Taxation has to be modified accordingly.

It is in the essence of this law [taxation as the price for public services] that it follows the changes that our constitutions and an infinity of circumstances brought to the primitive state of men . . . The very order of nature being inverted by the social order, in which some contribute much more to total wealth than they receive from it; those who receive from this wealth more than they contribute must be responsible for purchasing that wealth shared by the whole society [protection]; and this in proportion to the benefit each of them derives from it. (1767 : 173)

People thus will not have to pay the same price for public activity. Graslin follows here the ideas eloquently expressed by Montesquieu in *De l’Esprit des lois* (1748 : book XIII) who stated that, in taxation, proportionality is unjust

and progressiveness has to be the rule. The poor will not pay anything, and the rich will pay in proportion to the benefits they receive from this activity. In a sense, taxation now involves more than a little “corrective justice”. But determination of the tax level still follows the rules of commutative justice.

Graslin does not however merely quote Montesquieu frequently : he also tries to justify his point of view (1767 : 150ff). As for the labourer who produces wealth without really benefiting from it and who often does not even fulfil his basic needs, exemption is a law of natural justice : “In vain the social law demands that he must bear his share of the common burden. The law of nature is prior to it” (ibid. : 164). This exemption necessarily renders taxation progressive.

But as far as rentiers are concerned, progressiveness is also the rule : “the general law of taxation states that tax must increase in a proportion which is always greater with respect to the wealth of the taxpayer ; i.e., it must be more than doubled if wealth is double.” (ibid. : 160). An initial reason lies in the fact that citizens do not all consume the same quantity of the public service of protection : “protection . . . is not the same object of need for each citizen taken individually” (ibid. : 152), and this is another difference presented by the need for protection vis-à-vis any other basic need which is satisfied more or less in the same way, independently of the person who feels it. The more a citizen is wealthy, the more he consumes of the public good : “[. . .] the rich presents a greater surface to protection than the well-off citizen : in some respects he takes more of this object of need because of his rank in society, his possessions and his enjoyments” (ibid. : 150). This argument is not however decisive, because such a rich man would actually pay more even if there were a proportional tax. Conclusive instead is the reference to the sacrifice caused by the tax to the taxpayer.

But the rich man, who would give one tenth of his revenue, would give, i.e., would only be deprived of the objects of his last needs ; the citizen who is simply well-off and only has objects of necessity and utility, and who would give a tenth of his fortune, would perhaps give half of his objects of utility. The latter would thus give more while receiving less. (ibid.)

What is stated here is a justification of a progressive tax, which will give rise to the principle of the “equal absolute sacrifice”, as it will later be called —

an argument also proposed by Condorcet and Horace Say during the French Revolution (Faccarello 2006 : 26-30).

While justice in taxation implies progressiveness, taxation must not however be levied as an income tax. Graslin (1767 : 156ff) insists on the fact that such a tax is difficult to levy, will depend on the competence and honesty of the employees in charge of it, induce people to hide their true income or wealth, and will eventually give rise to arbitrary decisions and even “suffocate industry” (ibid. : 158). Moreover, as reported above, citizens always underestimate the value of the public service of protection and think they are paying too much. This is the reason why Graslin, adapting Montesquieu, declares himself strongly in favour of a progressive system of taxes on final commodities (ibid. : 163ff).

The first law for this tax is that . . . the objects of first necessity be exempt from it. . . . The second law is that the tax on things must not be proportionate to their relative value . . . but be all the more heavy on each object of need, the more distant this need is from necessity ; which has to distribute taxation among taxpayers according to a progressively increasing ratio, which is the sole rule of equity. (ibid. : 164 ; see also 183)

This, according to Graslin, is the sole way of implementing a just, flexible and production-friendly taxation system (see ibid. : 166-9) which would be in addition less painful (ibid. : 154-5) because taxes would be concealed in the prices of many commodities, and people would never know exactly what the total amount was that they were personally paying.³¹

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31. To be more comprehensive, we have also to mention Graslin’s detailed discussion of the case in which rentiers freely work in the State administration — a way to return to the society their unearned income, partly or totally. See Graslin 1768 : 147ff.

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