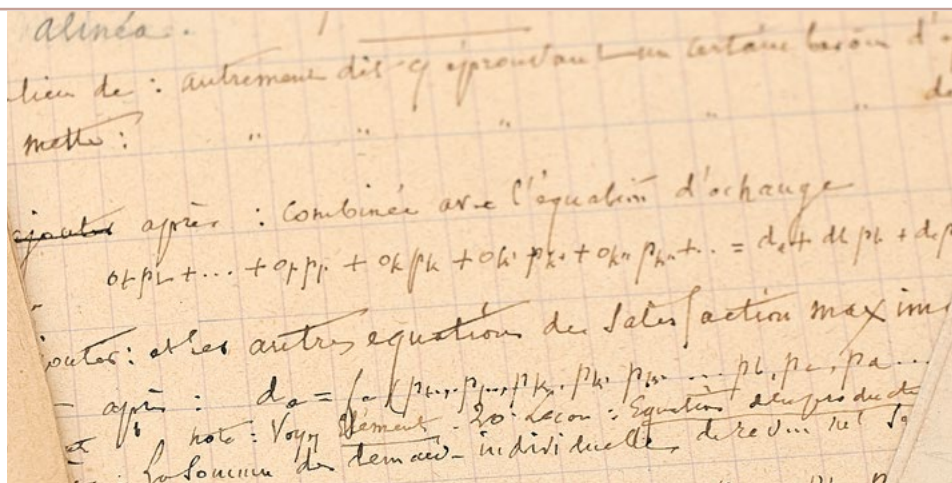


2 Léon WALRAS & William JAFFÉ

Very important and last remaining archives in private hands, including autograph manuscripts, typescripts, corrected proofs, offprints, first editions, etc.

1858 TO 1918 | DIVERSE FORMATS | 42 DOCUMENTS



– PROVENANCE AND HISTORY OF THE WALRAS ARCHIVES –

A founder of economic science along with Stanley Jevons and Carl Menger, Léon Walras is considered the father of liberalism, while his social and humanist commitment is generally omitted. The general equilibrium theory developed by Walras has in fact disrupted the classic conception of economics which, since Smith, Ricardo and Marx, based value on the labor necessary for production and on the opposition of social classes.

Despite the importance of Léon Walras' manuscript production and his numerous contributions to several economic journals, original documents, whether autographed or printed, from the archives of one of the most important economists of the late 19th century are exceedingly scarce, whether in private hands, public auctions or institutions.

This extreme rarity has contributed to a lack of recognition of Walras' name, while co-founders of marginal theory are often presented as his predecessors. However, as the historian of economics Mark Blaug writes:

"Jevons' Theory of Political Economy (1871) was not well received when it appeared, but it was read. Menger's Principles of Economics (1871) was both read and well received, at least in his own country. But Walras's two-part Elements of Pure Economics (1844-77) was monstrously neglected everywhere despite his indefatigable efforts to get the book noticed. That was in part because Walras set himself a task that went beyond Jevons and Menger, his co-discoverers of marginal utility theory, namely, to write down and solve the first multi-equational model of general equilibrium in all markets. In addition, Walras went far beyond Jevons in employing a mathematical mode of exposi-

tion, and this was enough to scare off most of his contemporary readers. But whereas Jevons and Menger are now regarded as historical landmarks, rarely read purely for their own sake, posthumous appreciation of Walras's monumental achievement has grown so markedly since the 1930s that he may now be the most widely-read nineteenth-century economist after Ricardo and Marx, particularly since the translation of the Elements into English in 1954."

Indeed, it was only thanks to this first translation by William Jaffé, almost 80 years after the first edition, that the theories of Léon Walras were internationally spread and became a pillar of twentieth-century economics, as Milton Friedman noted in his essay on Léon Walras upon the publication of *Elements of Pure Economics*: "Though I regard as somewhat extravagant Schumpeter's judgment that, "so far as pure theory is concerned, Walras is . . . the greatest of all economists," there can be no doubt that the *Elements* is a great work which marked an important step forward in the development of economics as a science, and which still plays an important role in economic thinking. It is well worth having a translation even at this late date in order to make it more readily accessible both to the profession at large and particularly to students learning to become economists: **it belongs on their "five foot shelf."** [...] **A person is not likely to be a good economist who does not have a firm command of Walrasian economics;** equally, he is not likely to be a good economist if he knows nothing else."

The animosity of his contemporaries combined with the care that Walras took in gathering his work and ensuring its availability for future generations, contributed to a very limited diffusion of his written

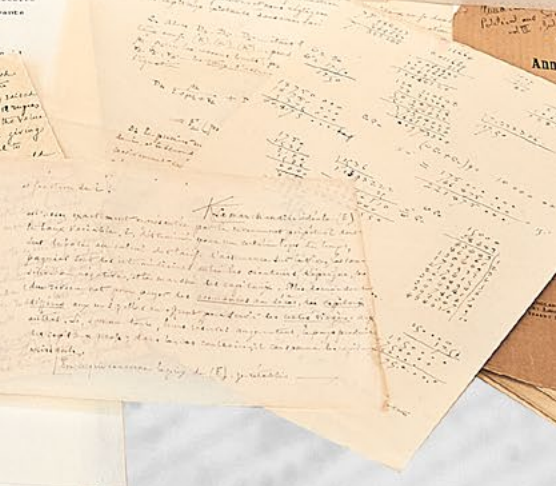
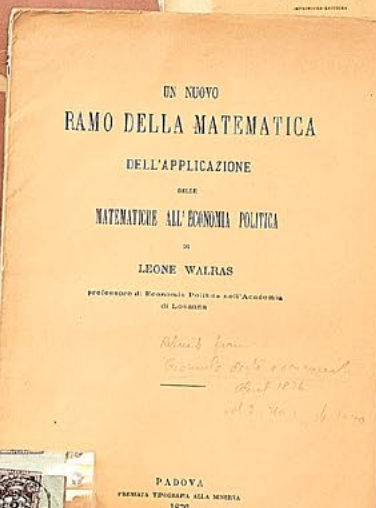
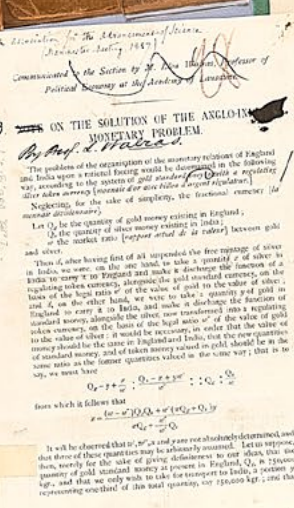
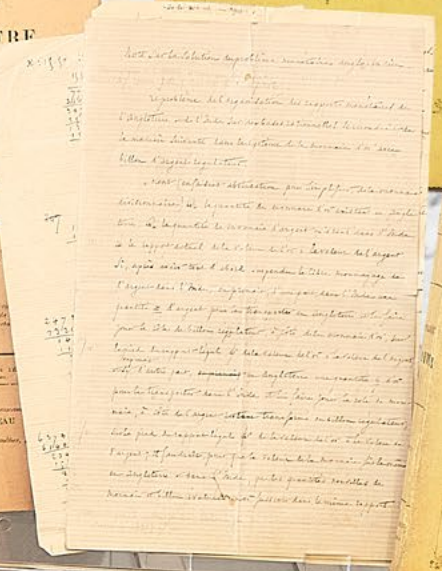
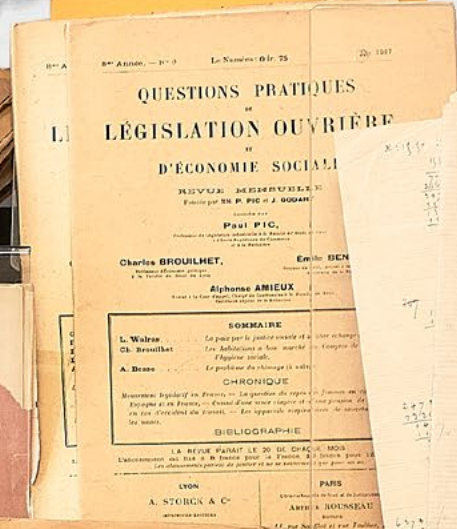
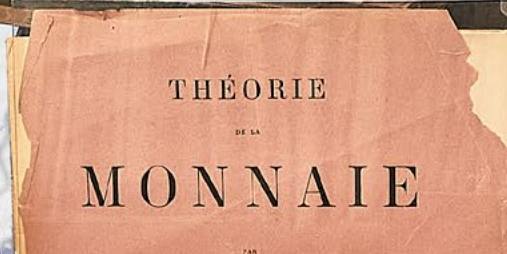
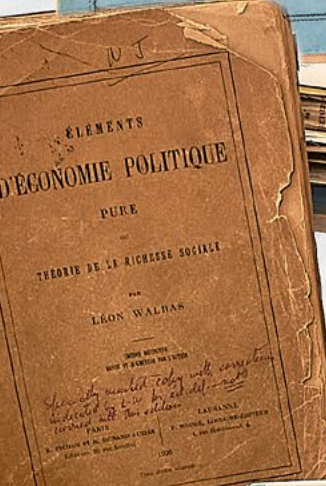
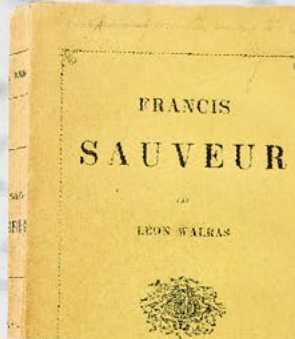
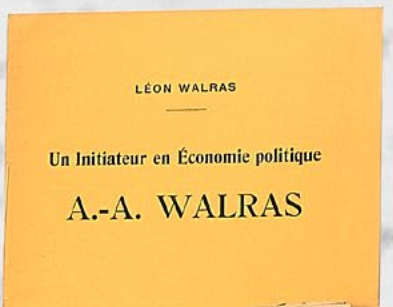
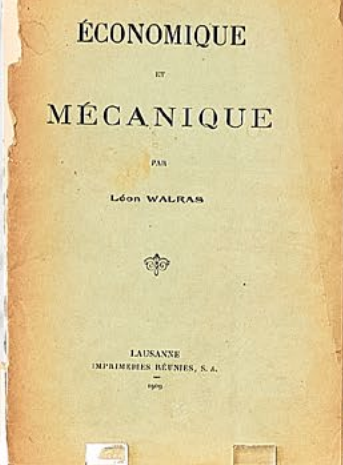
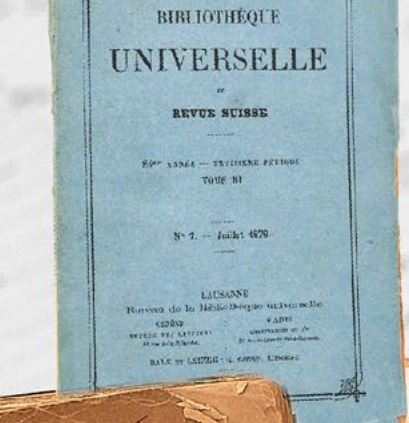
legacy, today almost exhaustively kept in four institutions:

- Archives cantonales vaudoises, Lausanne (holding most of the manuscripts and annotated proofs)
- Faculté de Droit, Lyon (mainly containing the archives of Auguste Walras and the family correspondence of Léon Walras)
- Bibliothèque de Droit, Sciences Économiques et Gestion, Montpellier (which lists two autograph works, course notes and some printed works)
- University of York (consisting solely of correspondence and photographs, the rest being copies made by William Jaffé or Aline Walras)

The history of the constitution of these archives and their content, detailed in our exhaustive catalogue, reveals a very limited dispersion of the original documents of Léon Walras.

However, before Olive Caroline Jaffé, widow of William Jaffé, donated several documents to the University of York, she entrusted Donald A. Walker with the continuation of her husband's research work on Léon Walras, and gave him part of the economist's archives previously donated by Aline Jaffé and her heir Gaston Leduc.

The exceptional and probably ultimate archives in private hands that we present come from the private collection of Donald Walker. **Outside the Universities of Lausanne, Lyon, and Montpellier, they constitute the last and most important set of manuscript works, corrected proofs and the author's own offprints, from the personal papers of Léon Walras.**



la favoriser (et le rachat agirait déjà dans ce sens), il trouverait amplement dans la plus-value nouvelle le moyen d'amortir le prix d'achat. Je ne crois pas, il est vrai, que l'État démocratique et parlementaire dont nous jouissons soit à la hauteur d'une telle opération; mais la

4^e SÉRIE, T. XXX. — 15 avril 1885.

6

des services fournis
inégale-ment-ri-ches
coûtes, du point de
ce dernier point, il
actuellement-est
comparablement-est

1 La plus-value nouvelle de la rente résultant de l'évolution économique dont il s'agit ne se produira qu'après la crise actuelle de nivellement des fermages dans le monde entier amenée par le développement des voies et moyens de transport et par la mise en communication des marchés qui confirme, bien loin de l'infirmes toute notre théorie de la rente et de sa plus-value dans une société progressive. Cette théorie en effet se ramène toute entière à la détermination du prix

- WILLIAM JAFFÉ'S WALRAS ARCHIVES -

ALL THE DOCUMENTS OFFERED HERE THEREFORE HAVE THE PARTICULARITY OF COMING FROM BOTH THE PERSONAL ARCHIVES OF LÉON WALRAS AND THOSE OF HIS PRINCIPAL SCHOLAR, WILLIAM JAFFÉ

Thus, most printed documents are corrected, annotated and signed by one and/or both parties.

However, the real coherence of this collection lies above all in the international dissemination of Léon Walras' ideas, particularly across the Atlantic. As it were, the documents preserved by Jaffé then Walker seem linked to this highly innovative desire to internationalize economic science, favored both by the mathematization established by Walras and by his early attempt to spread his ideas internationally.

"Walras was in contact, which was new for the time, with all the contemporary economists who left a name in the history of economic theory [...]. This progressive constitution of an international environment of economists undoubtedly owes a lot to the process of mathematization: Sakharov recently remarked that the equations are correct on all continents." (Hervé Dumez in *L'économiste, la science et le pouvoir: le cas Walras*)

This essential contribution by Walras to the establishment of a truly international community of researchers in economic science was not limited to a new language.

As noted by Jan Van Daal and Donald Walker (*Les œuvres économiques complètes*

d'Auguste et de Léon Walras”, *Revue d'économie politique*, vol. 117, no. 6, 2007), “many of Léon’s articles appeared in magazines or newspapers with low circulation and little known, and are therefore difficult to find”. The offprints of Walras’ articles are thus the best and almost the only ambassadors of Walras’ developing thought and his real means of scholarly communication with his peers (the Internet was born from this same desire for sharing between scientists). **Our collection containing numerous offprints annotated by the author, therefore reflects this specific approach.**

The mastery of the English language, which was becoming the official scientific language at the expense of French, was also an issue for Walras himself, as reflected in the documents preserved by Jaffé and Walker:

NOTE ON THE SOLUTION OF THE ANGLO-INDIAN MONETARY PROBLEM

As such, the two sets of proofs of *Note on the Solution of the Anglo-Indian Monetary Problem* expanded with numerous corrections and notes by Walras show the importance given to these translations.

THE GEOMETRICAL THEORY OF THE DETERMINATION OF PRICES

Likewise, *The Geometrical theory of the Determination of Prices*, an offprint from the American Academy of political and social science in Philadelphia, is abundantly annotated and expanded with a key auto-

graph explanation by W. Jaffé: “**The corrections in ink are those made by Léon Walras himself in a copy of this article sent to Alfred Marshall. The corrections are in W’s hand**”.

AUTOGRAPH ADDENDUM IN ENGLISH BY WALRAS & JAFFÉ’S MANUSCRIPT CALCULATION SHEETS

Moreover, the English version of this fundamental article, published a few months after the French original, was produced by Léon Walras himself as proven **by the original autograph manuscript in English by Walras**, presented in our collection and carefully kept by Jaffé who inserted **several calculation sheets** of his own into his printed copy.

UN NUOVO RAMO DELLA MATEMATICA DELL'APPLICAZIONE DELLE MATEMATICHE ALL'ECONOMIA POLITICA

Another work in this collection illustrates both the internationalization of Walras’ thought and the abandonment of the primacy of his original language. *Un nuovo ramo della matematica dell'applicazione delle matematiche all'economia politica* was first published in Padua in 1876 directly in Italian and never translated into French during the author’s lifetime.

BIBLIOGRAPHIE DES OUVRAGES RELATIFS À L'APPLICATION DES MATHÉMATIQUES À L'ECONOMIE POLITIQUE ET THEORIE MATHÉMATIQUE DE LA RICHESSE SOCIALE

Jaffé and Walker have also preserved a valuable offprint, **the unique collabo-**

ration between two of the founders of mathematical economics and also the very first bibliography of works relating to the application of mathematics to political economy, by Stanley Jevons, with the collaboration and an introduction by Léon Walras. This uncovered offprint is more than a simple census, it is a claim to legitimacy. Through the search for predecessors, these two economic revolutionaries assert that their thinking is part of historical continuity and is justified by the illustrious peers who preceded them. Thus, Walras is proud to add to the list the first mathematical occurrence in economic thinking, dating back to 1781, that is to say almost to the origin of economic thought.

THÉORIE MATHÉMATIQUE DU BIMÉTALLISME

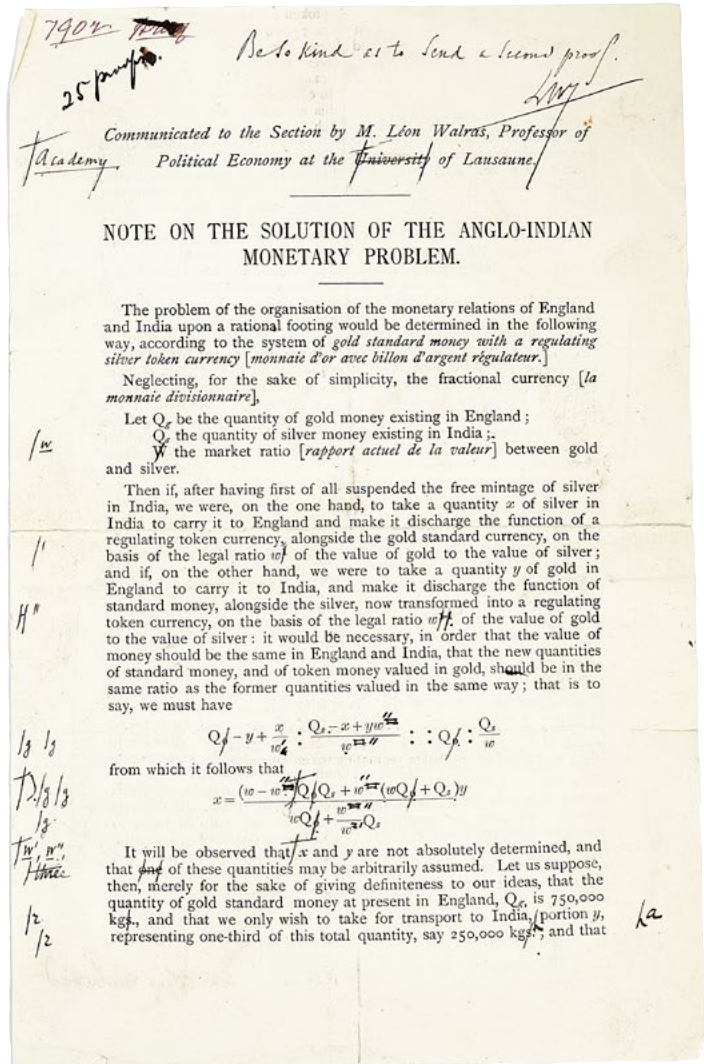
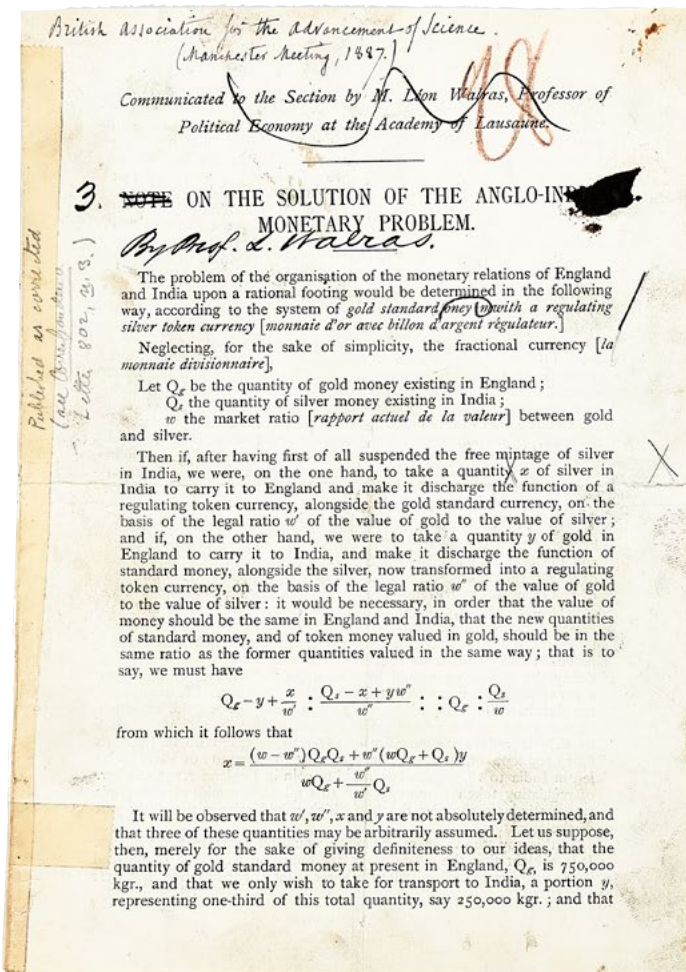
This obsession with historical legitimation can be seen on our copy of the *Théorie mathématique du bimétallisme* in 1881, abundantly annotated in pencil and corrected by Léon Walras and expanded with this long autograph note at foot of page 8:

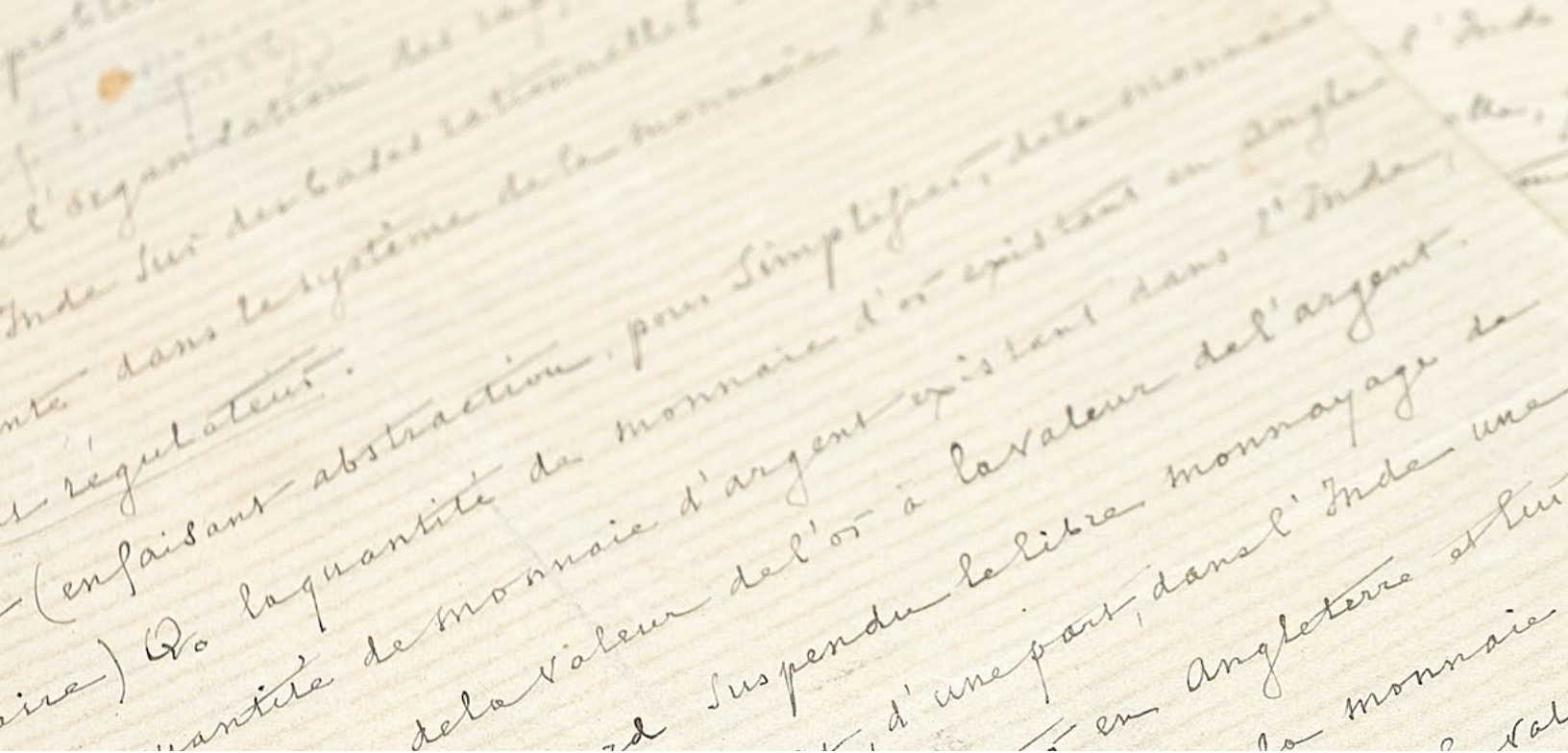
“The oldest of all the attempts to apply mathematics to political economy that have so far been found so far is a work by an Italian economist named Giovanni Ceva, published in Mantua in 1711 and entitled *De re nummaria quoad fieri potuit geometrica tractata ad illustrissimos et excellentissimos dominos Praesidene, Quaestoresque hujus arciducalis Caesarei Magistratus Mantuae*. This work was reported and analyzed by M. F. Nicolini in the October 1878 issue of *Giornale degli Economisti*.”

ÉLÉMENTS D'ÉCONOMIE POLITIQUE PURE

Our set also includes William Jaffé's own copy, with his autograph initial at the head, of the 1926 edition of *Elements of Pure Economics*, used to establish the American edition. Reputed to be the definitive edition, our copy is however annotated by Jaffé in red with a precious autograph note on the first cover: “Specially marked copy with correction indicated by L.W. for ed. def. – not carried into this edition.”

Published in 1954, Jaffé's translation, based on this copy, takes into account the corrections “indicated by Walras” and transferred in red ink. Although no one mentioned this particularity, it became the first definitive edition of Walras's magnum opus, 22 years before the 6th French edition.





– THE MANUSCRIPTS –

THÉORIE DE LA CAPITALISATION ET DU CRÉDIT

Among the precious and unique manuscripts in our set, it is interesting to note the five leaves accompanying the proofs of the 23rd lesson of section V of the *Elements* for the 1900 edition.

William Jaffé, who carefully preserved this extensively corrected manuscript of mathematical equations, rightfully remarked: “The most difficult part of *Éléments d'économie politique pure* is probably Section V of the definitive edition, which is entitled 'Théorie de la capitalisation et du crédit' [...]. That it was a real stumbling block for Walras himself, I also see proof in the numerous revisions he made of his theory of capitalization during the successive editions of the *Elements* which appeared during his lifetime. [...] If we want to gain a better understanding of the theory, we must follow it in the changes it has undergone in its successive versions and consider it from the point of view of the place it occupies as a whole.”

Attached to this manuscript is a printout of this lesson (p. 241 to 256) hand-dated "April 6, 1900" and signed by Léon Walras is attached to this manuscript. It also includes several corrections and autograph additions which, surprisingly, were never included in the definitive edition of the *Elements* in 1926!

NOTE SUR LA SOLUTION DU PROBLÈME MONÉTAIRE ANGLO-INDIEN

In the manuscript of his note later translated as *On the Solution of the Anglo-Indian Monetary Problem*, Walras – unconcerned about the imperialist competition which will soon lead Europe to its downfall – “proposes the establishment of his system to solve the monetary problems of the main economic powers” by offering a solution of economic balance to the British Empire. “He hopes to organize better monetary relations between the United Kingdom and India. His plan is intended to stabilize the pound and the rupee simultaneously, thereby ending the permanent devaluation of the Indian currency against the pound sterling” (JG Stab)

“The question of money interests me [...] because it lends itself to one of the first and most decisive applications of my system of pure political economy” wrote Walras in 1893.

However, our manuscript, far from being a simple autograph copy of this fundamental communication for Walras who thus hoped to see his theories applied on an international scale, contains several versions and numerous corrections.

These manuscripts are also expanded with three autograph pages of calculations (on two leaves) entitled “verifications” and a typewritten copy with a note by Walras.

ÉQUATIONS DE LA CIRCULATION

Another essential manuscript, *Équation de la circulation* [*The Equation of Monetary Circulation*] includes 8 leaves, undoubtedly written in 1899, a counterpart to the 19 ff manuscript kept in Lausanne and entitled *Sur les équations de la circulation*. The same year, Walras published an eponymous article from our manuscript in the *Bulletin de la Société vaudoise*. **What he developed here was an innovative concept of the circulation of money through which he created, according to Schumpeter, “the modern theory of money”**. Absent from the first editions, this concept was to form section VI of the 1900 edition of *Éléments d'économie politique pure* and following editions. For Schumpeter, the theory of money, i.e. of “circulating capital”, was the final founding piece of his general theory of equilibrium, along with the theory of the market for consumer goods and that of production and the market for producing services.

Attached are two offprints, probably published only for the author and his relatives. They are both annotated in pencil by William Jaffé who adds corrections and notes passages omitted from the 1900 edition of *Éléments*.

... d'une transformati
 ... d'un billon régulateur.
 ... ne croyais pas pouvoir ou devoir faire faire
 ... disponible, sous forme de monnaie, par
 ... à introduire, comme une condition
 ... importée de l'Inde dans l'Angleterre
 ... la parole quantité d'or importée de
 ... dire qu'il faudrait poser

$$x = yw$$

ÉQUATIONS DU TAUX DU REVENU NET

The last manuscript in this set is entitled *Équations du taux du revenu net* (*Equations of the Net Revenue Rate*), extensively corrected, which contains four pages on three and a half leaves. Written in 1900, a year after *Équations de la circulation*, it is a continuation of it and completes Walras' greatest work, *Elements of Pure Economics*, just before its fourth and penultimate edition issued in his lifetime. The importance of this last manuscript is underlined by Léon Walras himself in his autobiography:

"In 1900, I published the 4th edition of *Elements of Pure Economics*, which contained a theory of the determination of the rate of interest rationally deduced, for the first time, from equations of exchange and maximum satisfaction and which appeared in December under the title of "Note sur l'équation du taux du revenu net" [Note on the Equations of the net revenue rate], in the *Bulletin de l'Institut des actuaires français*, [...] and a theory of the value of money deduced, also rationally, for the first time, of equations of exchange and maximum satisfaction and which had been communicated in 1899 under the title of "Équations de la circulation" to the Société vaudoise des sciences naturelles, which elected me an emeritus member on that occasion. This 4th edition of *Elements of Pure Economics*, with the two volumes of *Studies in social economics* and *Studies in Applied Economics*, can, I believe, give a sufficient idea of my economic and social doctrine."

Our manuscript, initially written on three leaves, is expanded with an additional half-sheet of text to be

inserted in the first paragraph. This composition and the numerous erasures, deletions and additions clearly indicate a first draft work in full development. Its numerous corrections are undoubtedly as instructive on the formation of Walrasian thought as the definitive published content.

SOCIAL AND PACIFIST COMMITMENT

Among the documents preserved by Jaffé are some of his first offprints and proofs resulting from this "desire of Léon Walras to achieve a synthesis between socialism and liberalism." as Claude Hébert explains: "From 1864 to 1870, Léon Walras participated in the cooperative movement. [...] As a practitioner, he founded with Léon Say, the Caisse d'Escompte des Associations Populaires and the newspaper *Le Travail*."

However, C. Hébert clarifies what was at stake for Walras in these early writings, which he describes as "a true profession of faith". The humanist economist indeed saw in these movements an alternative to his tax reform for "solving the problem of wealth distribution": "Through the theoretical approach that he was to develop in three public lectures at the beginning of In the year 1865, Walras distinguished

himself from his contemporaries by seeing in the association a means for the working classes to gain capital ownership through savings."

De l'organisation financière et de la constitution légale des associations populaires [On the Financial Organization and Legal Constitution of Co-operative Societies] offered in this set is one of these lessons. Also attached is a very rare, corrected proof of his newspaper *Le Travail*, explicitly subtitled: "Organe international des intérêts de la classe laborieuse" [international organ of the interests of the working class], or the offprint of his *Projet de loi sur les sociétés à responsabilité proportionnelle* which will be published in the No. 7 of the newspaper.

Handwritten mathematical calculations on aged paper. The page contains several columns of numbers and operations, including addition and subtraction. At the bottom right, there is a small diagram or equation: $x = 6$.

ould go to the £ 1, which would only bring the value
the rupee to one shilling and eightpence, thus giving
 $w'' = 17.50$ about, it would then be equal to
1,02,568 Kgr. of which 727,568 Kgr. only would
ave to be transported without equivalent, and 4,375,000
gr. would have to be transported in exchange for 250,000
gr. of gold; and the two operations would give a profit,

- PEACE THROUGH SOCIAL JUSTICE AND FREE TRADE -

In addition to the three rare issues of *Questions pratiques*, the first edition of Walras' text, our set includes the precious copy of the offprint of Walras' manifesto: *La paix par la justice sociale et le libre-échange* [Peace through social justice and free trade].

At a time when heightened international tensions were about to drive Europe into a corner, Walras saw his economic revolution as a solution capable of preventing conflicts and establishing lasting peace through interdependence between peoples. Thus in 1907, barely seven years before the outbreak of the First World War, Walras put his work at the service of the peace effort, in pure physiocratic tradition: "It is impossible for two peoples to draw partly their subsistence from each other if they are at war; and, reciprocally, it is all the more difficult for them to go to war as they draw more of their subsistence from each other. In a word, free trade not only presupposes and requires peace, but it maintains and ensures it".

This manifesto is one of the rare positions taken that is both pacifist and pragmatic in which Walras calls on states to rebalance the market and economic forces and not merely a utopian fraternity between peoples.

Today, except a few in institutional archives, there are no copies on the market of this tragic highpoint of Walrasian endeavors: mathematical economics, social justice, the recognition of his peers and the preservation of his work.

FRANCIS
SAUVEUR

The most important document in our set for understanding the complex personality of the founder of the School of Lausanne does not directly concern his economic theories, but is one of only two copies of his unique literary work abundantly annotated and corrected (the other at the University of Lausanne). Léon Walras signed and inscribed the cover in pencil:

"Warning and corrections for a second edition".

"Work, think. Search tirelessly. Look for the life-giving principle and formula for an ideal society. And when you have found it, nothing can delay its application. Because, from now on, without upheavals, without rev-

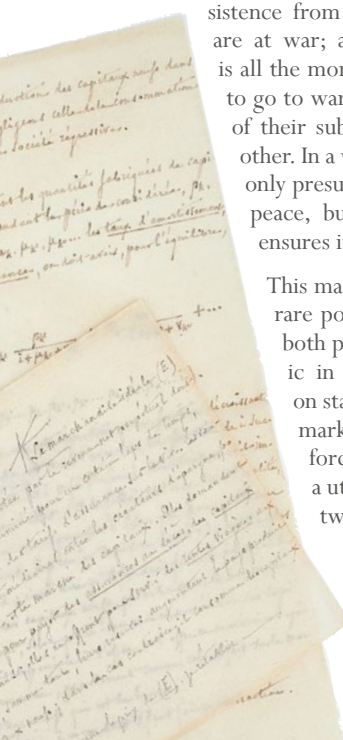
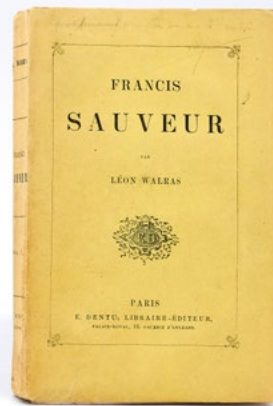
olutions, without shedding a tear or a drop of blood, society will, under your Inspiration, be able to slowly transform itself; and, docile as the ship at the helm, to take and follow the direction of progress, which all together, without exception, and in fraternal agreement, you will strive

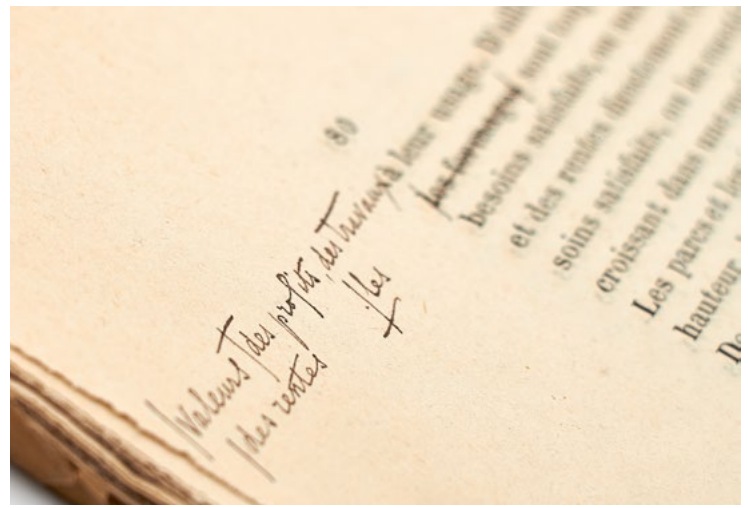
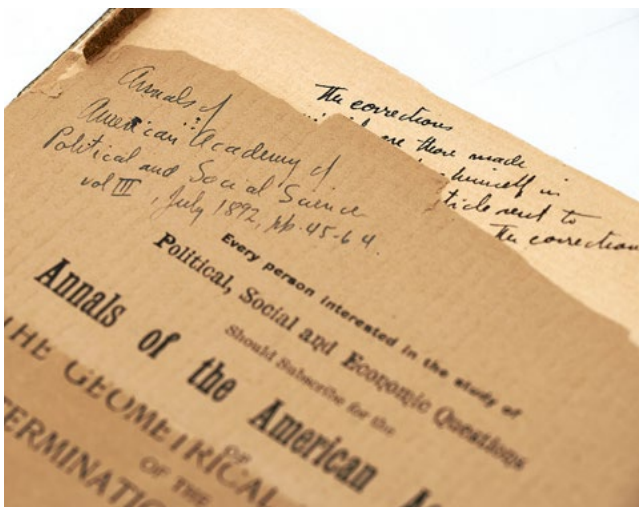
to give. From this day forward, you are all citizens, all voters, all legislators, all equal."

This perfect synthesis of his scientific commitment was not written by Walras at the end of his career, but as a preamble to his early work: *Francis Sauveur*, published a few months before the revelation of his vocation as an economist. This quasi-autobiographical novel published on his own

account was very quickly "withdrawn from the market" according to Walras himself and long disowned by the economist, who confided in a letter to Edouard that he had "communicated it to very few people".

50 years after its first publication, Léon Walras nevertheless took up this early text and, on two copies, made numerous mod-





ifications, wanting to republish them at the end of his career as an economist.

In addition to the numerous corrections and additions in the text, and more explicitly the rewriting of the denouement, it is in the long autograph note added to his long preface that Walras reveals both the constancy of his youthful ideal and the terrible disillusionment of his maturity. It is in fact in this prologue-manifesto, much more ambitious than his novel, that the ephemeral novelist Walras exposed the dynamics of the eternal economist and attributed to him an origin, a political and social foundation that served as a preamble to his revolutionary

thought: "Others than myself will panegyric or satirize the republic of 1848. [...] Still, however weak and powerless, and however justly swallowed up the republic of 1848 may have been, it is entitled on our part to more than the vain respect we owe to the dead, since from it, and from it alone, we have received universal suffrage as a sacred heritage".

Barely 10 years after the universal suffrage proclamation, the very young Walras had understood the implications of one of the most fundamental social advances which would soon usher Europe into the modern era. But 10 years before Europe was confronted with the worst consequences

of its modernity, the 70-year-old economist made a disenchanted correction in pencil to his preface which was to sum up his bitterness: **"My opinion of universal suffrage was modified by the distinction I came to make between theory or social science and practice or politics. I still believe that universal suffrage is a scientific truth in that it has its place in the social ideal, provided that it is rationally organized. But I also believe that its premature advent and its operation in a crude and brutal form is a political misfortune from which French democracy may not recover"**.

- A RESURFACED TROVE OF ARCHIVES -

The capital documents carefully preserved and passed on by Aline Walras to William Jaffé then to Donald Walker not only constitute the ultimate set of Léon Walras' archives in private hands, but also present a real intellectual coherence. Several of these autograph pieces seem to have remained unpublished, despite their mathematical and conceptual importance. These include the corrections of section V of the Elements, those of Francis Sauveur, or the corrections of proofs of which we were able to consult the

definitive published version. However, our lack of knowledge of the subject did not allow us to assess the importance of the numerous notes on calculations and equations as well as the additions of paragraphs to the published texts, nor have we been able to work on the extreme rarity of proofs and offprints, many of which cannot be found outside the Vaud archives.

We have established a complete file describing the journey of Léon Walras' archives and detailing the constitution of

the present archives with a summarized study of the documents proposed and their context of production. Evidently, the overview of the documents highlighted in this presentation is neither exhaustive nor necessarily relevant and only an in-depth study by competent researchers could reveal the true importance of these unique documents, which turn out, after census, to be the one of the five most important sets of archives of the one whom Schumpeter considered the "greatest of all economists".

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