vol. II 1989

Fontanus

from
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McGill University

Cover Illustration: *Veritas Filia Temporis (Truth, the Daughter of Time).* Truth rising from the abyss towards Heaven is assisted by Saturn holding an hourglass to escape the clutches of a dragon-tailed creature who pulls at her hair and beats her with snakes.

Woodcut from Adriaen Willaert, *Cinque Messe.* Venezia, 1536. Taken from the copy preserved in the Prooke-Bibiotek, Regensburg and reproduced in Raymond Klibansky and H.J. Paton, *Philosophy and History. Essays presented to Ernst Cassire.* Oxford: Clarendon Press, 1936.

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Editorial

McGill University has collected books for over 160 years. In the beginning, books were donated by benefactors and professors; the Library did not have a book budget of its own. Even after 1855, when Members of the Board of Governors set aside an endowment for the purchase of books, this fund generated only a very modest sum and, for decades, private donations have continued to be the major source of new books for the University Libraries. It is particularly interesting to recall, however, that the support of past benefactors, even over a hundred years ago, still yields revenue with which the Libraries buy books every week.

A modern research library relies on both financial support and support-in-kind; thus, the collections are a testimony to the devotion and dedication of generations of benefactors. William Molson and his family, Peter Redpath and his wife Grace, Jane (Mrs. John) Redpath, Hugh McLennan, Isabella McLennan and other members of the family, are only a few of the many hundreds of concerned donors who have actively built up McGill's collections of books, artifacts, pictures and archives. Yet, without additional funding from the Government of Quebec and the Federal Government of Canada, the Libraries will not be able to fulfill the needs of scholars and students.

The positive acceptance of *Fontanus*, Volume I, gives ample proof of the need for such a publication as a necessary complement to our major research collections. It is widely agreed that the articles demonstrate the diversity, breadth and depth of McGill's collections and of the myriad uses made of the knowledge contained in these precious resources.

In response to the first volume, a number of scholars, librarians and writers came forward with articles related to the treasures in the collections. Volume II offers eight new articles on a variety of topics. Several other articles had to be held over for Volume III, which is already in preparation.

Hans Möller
Editor

René Cassin and the Daughter of Time: The First Draft of the Universal Declaration of Human Rights

by A.J. Hobbins

In the forty years since the U. N. General Assembly adopted the Universal Declaration of Human Rights, no definitive history of the drafting process has been written. The events of the two years leading up to the adoption are dealt with in cursory and often conflicting fashion in most general studies of the Declaration. The McGill University Law Library houses the handwritten manuscript of the original draft of the Declaration, which is published here for the first time. The facts surrounding its production, evolution and early use are chronicled, based on primary U. N. documents as well as the memoirs of some of the principals in the process, including Eleanor Roosevelt, first Chairman of the Commission on Human Rights; René Cassin, Nobel Laureate and French Representative on the Commission; and John Humphrey, a Canadian lawyer who was Director of the Human Rights Division of the U.N. Secretariat.

Quarante ans se sont écoulés depuis l'adoption de la Déclaration universelle des droits de l'homme par l'Assemblée générale des Nations unies. Cependant, aucune histoire définitive du processus d'élaboration de la Déclaration n'a encore été écrite. Les événements qui ont marqué les deux années précédant son adoption sont relatés de manière superficielle et contradictoire dans la plupart des études consacrées à ce sujet. La bibliothèque de droit de l'université McGill possède un manuscrit de la version originale de la Déclaration, lequel est publié dans ces pages pour la première fois. Le processus de la rédaction, de l'évolution et de l'application de la Déclaration font ici l'objet d'une chronique, fondée sur les archives des Nations unies et les mémoires de ses trois principaux instigateurs: Eleanor Roosevelt, premier président de la Commission des droits de l'homme; René Cassin, prix Nobel de la paix et délégué français auprès de la Commission; et John Humphrey, juriste canadien et ancien directeur de la division des droits de l'homme au Secrétariat des Nations unies.

December 10, 1988, marked a number of anniversaries: the death of Alfred Nobel (1896), the adoption of the Universal Declaration of Human Rights by the United Nations (1948) and the awarding of the Nobel Peace Prize to René Cassin (1968). The inextricable link between these events was the fact that Cassin was awarded the prize for his work in getting the Universal Declaration adopted and that since that time he had "tirelessly worked for the carrying out of its rules both universally and on the European level."[1] Indeed, Cassin's career prior to being awarded the prize was long and distinguished. He had been a French delegate to League of Nations Assemblies and Disarmament Conferences from 1924-38 and, after the war, a member of the U. N. Commission on Human Rights, its Drafting Committee (1947-48) and later its Vice-Chairman (1949) and Chairman (1955). He had also been a judge of the European Court of Human Rights from 1959 and its President from 1965.

Cassin is widely reputed to be the author of the Universal Declaration, although he never made this claim. In fact such a suggestion could be considered specious in that many people and governments were involved over a significant period of time honing a variety of drafts. Nonetheless Cassin was one of the leading lights in the Commission which laboured long, hard

and successfully to produce an acceptable document. He does claim, however, to be the sole author of the first draft upon which subsequent work was based.[2] This claim is echoed in many reputable sources.

Cassin's remembrance of how the first draft of the Universal Declaration was written is readily available. He states that the eight-man drafting committee called on him to prepare a preliminary draft Declaration on "the basis of material assembled by Professors John P. Humphrey and Emile Giraud," and proposals submitted by Panama and Cuba.[3] Elsewhere Cassin described the "material assembled" in more specific terms as "un excellent travail documentaire de base élaboré au secrétariat des Nations-Unies [*sic*] par les Professeurs Humphrey et Giraud...."[4] However, he states this documentation could not stand the course of oral debate and he continued, "C'est pourquoi je fus chargé par mes collègues de rédiger, sous ma seule responsabilité, un premier avant-projet."[5] The draft consisted of a preamble and 45 articles which he submitted to the Committee on June 3, 1947. Thus it was, he recalls, that at the request of his colleagues he became solely responsible for writing the first draft.

While these memories have generally been accepted as fact, they have been contradicted consistently, if quietly at first, for some time. Professor John P. Humphrey,[6] a lawyer and scholar of great eminence in the field of human rights, has a different recollection. Humphrey, as Director of the Human Rights Division of the U.N. Secretariat, was present at most meetings of the Commission and its various committees, frequently as Secretary. By virtue of his position he was uniquely qualified to recall events and for him the story began earlier.

The Commission on Human Rights met for its first regular session under the chairmanship of Eleanor Roosevelt on January 27, 1947.[7] (Figure 1) One of the most important orders of business was to make arrangements for the drafting of an international bill of human rights. The Commission was split on how to proceed. The representatives of Australia and the United Kingdom had recommended that the Secretariat be expressly responsible for the production of a draft under the general supervision of the Commission's Officers, that is the Chairman, the Vice-Chairman, P. C. Chang of China, and the Rapporteur, Charles Malik of Lebanon (Figure 2). The majority felt, however, that the Commission would be abrogating its authority if it proceeded in this way. Eventually Malik found the wording for a resolution which allowed the Secretariat to do the work while the Commission retained its responsibility. The resolution read in part as follows:

> That the Chairman of the Commission on Human Rights, together with the Vice-Chairman and Rapporteur, undertake with the assistance of the Secretariat, the task of formulating a preliminary draft international bill of human rights...

This resolution establishing the Drafting Group was adopted on February third.[8]

Cassin was later to state that he was opposed to the establishment of the Drafting Group. He wrote:

> Mais elle [Mme. Roosevelt] a pris, contre l'avis des représentants soviétique et français, une décision de procédure qui ne peut s'expliquer que par la volonté d'être prête pour l'Assemblée de 1947: celle de confier à son bureau comprenant la présidente, le vice-présidente et le rapporteur, le soin d'élaborer, avec le concours du secrétariat, un premier avant-projet de déclaration, sous forme de résolution de l'Assemblée.[9]

The fact that the Drafting Group subsequently proved to be unworkable would indicate that those who opposed it were prudent and had foresight. However, Cassin's claimed opposition is not sustained by an examination of the summary records of the meetings, which state:

> Mr. Cassin (France) pointed out that it was manifestly impossible for the Commission itself to do the drafting work; neither could the Secretariat do that work, since that would imply a derogation of the Commission's mandate. He favoured, therefore, the Rapporteur's proposal, since the Commission could carry out its duties through its Chairman. In view of the fact that Mrs. Roosevelt would not be available during some of the time between sessions, two or four other

Figure 1. John Humphrey and Eleanor Roosevelt. (See note 44).

> members of the Commission should be designated to assist her, and to form a small Committee.[10]

In the lunch break between the eleventh and twelfth meetings, Cassin, Malik and Ribnikar, the Yugoslavian representative, worked on the draft resolution which after some slight amendment in the twelfth meeting established the group. The resolution was adopted without dissent.[11] Tepliakov, the Russian representative, later withdrew support for the arrangement after consulting his government. It seems probable, therefore, that Cassin's memory of opposition to a measure he had in fact advocated reflected the unerring accuracy of hindsight rather than foresight.

The Drafting Group did not meet often. Malik, in his address to the General Assembly, said:

> This small group convened several times informally at Mrs. Roosevelt's home, but met with great difficulty in performing the tremendous task assigned to them for it was hardly possible for them to be aware of all the trends of thought on human rights and fundamental freedoms which existed in the world.[12]

Humphrey and Roosevelt each recalled the group meeting only once during which the deep philosophical divisions between Malik and Chang became apparent. Malik, a devout Christian, believed the question of rights should be approached through Christian precepts, especially the teachings of St. Thomas Acquinas. Chang argued for a broader approach and suggested, tongue in cheek, that Humphrey, before he prepared the first draft, go to China for six months to study Confuscianism. Roosevelt, who on her own admission found herself somewhat out of her depth in these difficult discussions, remained silent and poured tea.[13] Malik evidently took Chang's point for, in his Plenary Session speech when he stated those involved were too numerous to mention individually, he made an exception for Chang whom he thanked as follows:

> But I must refer to Dr. P.C. Chang, this distinguished Vice-Chairman of the Commission and drafting committee, who has never failed to broaden our perspective by his frequent references to the wisdom and philosophy of the Orient and who, by a special drafting gift, was able happily to rectify many of our terms.[14]

The only action taken by the Drafting Group was to ask Humphrey to prepare a draft international bill of rights.

Humphrey worked on a draft for the next six weeks, producing a manuscript, five typed drafts and, finally, a mimeograph dated March 15. Meanwhile the Commission on Human Rights was debating the wisdom of dividing the international bill into two parts: a Declaration, which would not be binding on individual states, and a Convention, which would be. The Soviet Union was also becoming more vociferous in its ojections to the drafting process. On March 24 Roosevelt, wisely though possibly illegally, wrote to the President of the Economic and Social Council informing him that she had established a new eight member drafting committee, which included representatives from the Soviet Union and France.[15] Cassin, in this connection later wrote that the two problems of the original committee were firstly that there was no European representation – "Omission symbolique" – and secondly that, despite the fact that French was an official U. N. language, everything appeared to originate in English and the retranslations into French did not conform with his initial texts.[16] The Economic and Social Council accepted Roosevelt's suggestion for a new committee and at the same time requested the Secretariat to provide the members with an outline at their next meeting.[17]

The Economic and Social Council's request for an "outline" created a number of difficulties in the interpretation of subsequent events. Humphrey chose to interpret an outline freely and, having already completed a draft international bill, he retitled the same text *Draft Outline of International Bill of Rights*. As Secretary of the new drafting committee, Humphrey submitted this text, which became known as the Secretariat Outline, at the first meeting on June 9. He also submitted a massive compilation, prepared by the Secretariat staff, entitled *Documented Outline*. This was 408 pages of supporting documentation arranged as a commentary on the Secretariat Outline, article by article.[18] These two documents appear to

Figure 2. U.N. poster publicizing the Declaration, circa 1949. (See note 45).

have been confused. Cassin must have been talking of the latter when he stated the work of the Secretariat could not stand the course of oral debate, forgetting he was also given the former. Malik described the work done by the Secretariat as follows:

> It was, therefore, the international Secretariat of the United Nations, in particular Dr. John Humphrey of the Division of Human Rights, who prepared the first draft documented outline of an International Bill of Human Rights. This was a tremendous work of documentation covering over 400 pages. It is a matter for independent research to trace back our present fully developed articles to the rudiments in that basic compilation. The present declaration may therefore be said to have been constructed upon a firm international basis wherein no regional philosophy or way of life was permitted to prevail. For the Secretariat draft outline was a synthesis not only of all the hundreds of suggestions that had been made by governments, by private organizations, and by individuals, but also of law and practise in all the various Members of the United Nations.[19]

The Drafting Committee established a temporary Working Group, consisting of Roosevelt (ex officio), Malik, Cassin and the United Kingdom representative, Geoffrey Wilson, to advise it on how to proceed. On June 13 the Working Group, feeling any document would have greater unity if drawn up by an individual, requested Cassin to "undertake the writing of a draft Declaration based on those Articles in the Secretariat Outline which he considered should go into such a Declaration."[20] The other members considered the matters of a convention and implementation. Cassin completed his task over a single weekend with the assistance of Emile Giraud of the Secretariat.[21] This time frame would certainly indicate that his draft was based on research already undertaken. Thus while Cassin had some of the leeway implicit in his remembrance, there were also clearly restrictions in terms of the Secretariat Outline. Although Cassin states in several places his "avant-projet" was submitted on June 3, this was clearly impossible.[22] It was actually handed in on Monday, June 16.[23]

Humphrey maintains that the Cassin draft reproduced the Secretariat Outline in most of its essentials. He describes the changes as follows:

> Some of his articles were no more than a new French version of the official United Nations translation of the English original. He also changed the order of some of the articles, combined in one article principles the Secretariat draft had expressed in two and divided some of them into two or more articles; and he left out some of the articles because in his opinion, they could be more appropriately included in a convention. Many of his changes and in particular the changed order did not survive the test of time.[24]

It can certainly be shown that Humphrey was the author of the Secretariat Outline. The manuscript and annotations on the typed drafts are all in Humphrey's handwriting, although he acknowledged receiving some help from Giraud in terms of reading and commenting on his work.[25] It is equally evident that the Outline predated Cassin's draft and that Cassin had access to it while preparing his. If, as Humphrey suggests, the Cassin draft was derivative in nature and clearly based on the Outline, then Humphrey not Cassin should be given credit for the first draft. It should be noted, of course, that if Cassin's draft was derivative, he was only doing precisely what he was asked to do. In December 1948, Malik compared the two drafts in the following terms: "If the Secretariat draft was the primordial womb of our declaration, the Cassin text was the first-born of that womb."[26]

It would require an independent scholar of impeccable credentials to evaluate the accuracy of Humphrey's assertion and the extent to which Cassin's work was derivative. However, even the untutored eye can detect significant resemblances between the official French translation of the Secretariat Outline (SO) and the Cassin Draft (CD), a few examples of which are presented here.

SO Article 2

Les droits de chacun sont limités par ceux d'autrui et par les justes exigences de l'Etat et des Nations Unies.

SO Article 13

Tout individu a le droit de contracter mariage conformément aux lois.

SO Articles 43 and 44

Tout individu a droit à une juste part de repos et de loisir.

Tout individu a le droit de prendre part à la vie culturelle de la société, de jouir des arts et departiciper aux avantages de la science.

CD Article 4

Les droits de chacun sont limités par ceux d'autrui.

CD Article 17

Tout individu a le droit de contracter mariage en se conformant aux lois.

CD Article 42

Tout individu a droit à une juste part de repos et de loisir et de connaissance du monde extérieur.

Tout individu a le droit de prendre part à la vie culturelle de la société, de jouir des arts, de participer aux bienfaits de la science.

There are many other similarities and it would appear that the question indeed warrants further study.

There were also several significant differences between the two texts. The Preambles are dissimilar and the concept from Cassin's Article I "Les êtres humains... doivent se regarder comme des frères" is not evident in the Secretariat Outline. Cassin indeed stressed his belief that the concept of brotherhood had a higher value than individual rights. He wrote that:

> However, as soon as the Drafting Committee... met in June 1947, it commended its Rapporteur, who, following the principles of the French Revolution of 1789 and in strong reaction to Hitler's totalitarian oppression, had not begun by enumerating individual freedoms, nor even by stating the most fundamental rights, as the right to life, but had placed first a categorical affirmation of a higher value which makes life itself worthwhile.[27]

In clearly referring to himself, it is something of a mystery why Cassin should consider he was the Rapporteur. His biographer and a President of France, amongst others, have also stated he held this office, but he was never Rapporteur of either the Commission or the Drafting Committee.[28]

Humphrey, like Cassin in another context, questioned the quality of the official U.N. translations of texts. He felt that the process made the English translation of the Cassin draft more dissimilar from the original Secretariat Outline than it actually was. He wrote that Cassin:

> ... merely prepared a new French version of the official United Nations translation of the original English, and when this was translated back into English the result seemed further removed from the original than it really was.[29]

It is not hard to find examples of this type of problem. The Secretariat Outline, Article 48, uses the phrase "National Law", which in the French translation becomes "droit national". The Cassin draft, Article 45, uses this precise language but the English translation specifies "Municipal Law". Any evaluation of the texts should, therefore, use the official French translation of the Secretariat Outline and the original of the Cassin draft.

Scholars will have to make textual comparisons to resolve questions such as outline versus draft and who may be responsible for which text. Cassin's original handwritten draft, displayed at the request of the French government in the United Nations Headquarters

on the 10th anniversary of the Universal Declaration, is partly reproduced in his book, *La pensée et l'action*.[30] The typed text of Cassin's draft (from which this author worked) appears as Annex D of the UN Document E/CN.4/21, along with Annex A, the official French translation of the Secretariat Outline. The Law Library at McGill University houses the original Humphrey manuscript and subsequent drafts which resulted in the Secretariat Outline.[31] As a further step to providing scholars with the necessary pieces of the puzzle, the original manuscript is described and transcribed here for the first time, including comparisons with the first typed draft.

The Secretariat Outline

As was noted earlier, the original Drafting Group had asked Humphrey to prepare a draft early in February. Humphrey studied a number of texts on the subject prepared by individuals and organizations. These included, amongst others, work by Gustavo Gutierrez, H. G. Wells, and Hersch Lauterpacht, as well as material from the American Law Institute, the American Jewish Congress, and the World Government Association.[32] He then prepared a manuscript which, along with the first typed draft, was undated. There followed the second typed draft (February 27), the third typed draft (February 28), the fourth typed draft (March 5) and the fifth typed draft (March 6). These dates were added in ink at the top of each first page in Humphrey's hand but it is uncertain when. The date for the third typed draft indicates it was shown to Mrs. Roosevelt at that time.[33] The mimeograph of the fifth typed draft bears as part of the text the date of March 15.

The Manuscript Draft

The manuscript draft, in Humphrey's own hand, provides a fascinating insight into the creation of the final document. It shows where the ideas flowed freely, where there were problems, where there were second or third thoughts, and where avenues were abandoned. It is clear that several sheets are missing since one sentence begins in the middle and, indeed, Articles VIII and IX do not appear at all. The first part of the manuscript is written in pencil, while the remainder is in ink.

Sheets 1 to 3 are on 8 1/2" x 11" white lined paper. Sheet 4 is on the verso of 3. Sheets 5 to 17 are written on 6" x 9" buff unlined paper.[34] Sheet 6 is on the verso of 5 and Sheet 17 on the verso of 16. Sheets 18-23, again on 8 1/2" x 11" white lined paper, are written in ink and certainly date from a later period, i.e. probably a matter of several weeks when the third typed draft was prepared. Sheets 19-23 are not reproduced in this article since they are unconnected with the first draft. All the sheets are brittle, indicating high acid content in the paper, but no text has been lost through this decay. Humphrey's method of erasure was to strike a line through the offending word, or occasionally to use a scribble if a paragraph was involved. The discarded text is quite legible and is reproduced here in italic print. Only one erased word could not be identified. Editorial notes appear in square brackets and sheet numbers have been added for each page. The manuscript draft is then as follows:

Sheet 1

The preamble shall enunciate the following principles:

1. that there must be respect for human if [*sic*] rights and freedoms if the world is to know peace;

2. that man does not have rights only: he owes duties to the society (both national and international) of which he forms part.

1. The provisions of this International Bill of Rights shall be deemed fundamental principles of international law and of the national law of each of the member States of the United Nations. Its observance is therefore a matter of international concern and it shall be within the jurisdiction of the United Nations to discuss any violation thereof.

   [Article I first typed draft]

1a It is the duty of the State to respect and maintain the rights enunciated in the Bill of Rights.

   [Section 1a was added later and became the basis for Article II in the first typed draft]

1b Every one owes a duty of loyalty to his State and to the international community of which he forms part. He must accept his fair share of responsibility for the performance of social duties and also his share of any sacrifices made necessary by the exigencies of life in common.

[Section 1b was inserted from the bottom of the page and became Article III of the first typed draft]

2. In the exercise of his rights every one is limited by the rights of others and by the just requirements of the democratic State.

[Article IV of first typed draft]

3. Every one has the right to life.

[First section of Article V, first typed draft] torture.

[very faint aide-mémoire to insert text appearing on sheet 4]

4. Every one has the right to personal liberty.

[Article VII of first typed draft]

Sheet 2

Preamble

Man does not have rights only, he owes duties to the society (national and international) of which he forms part

1. It is solemnly declared that the principles here enunciated are matters of international concern. No plea of sovereignty shall ever again be allowed to permit any nation to deprive

[inserted from lower on the page]

Rights and Duties within the State

Right to Liberty and Freedom
Right to Social Security
Right to Equality and Protection against Discrimination
Limitations

Rights and Duties as Member of International Community

Right to live out his days secure from war and the fear thereof.

Incorporation of Declaration into National Law (See Inter-American)

Sheet 3

Declaration of International Concern

It is solemnly declared that the principles enunciated by this International Bill of Rights are matters of international concern and within the jurisdiction of the United Nations. No plea of sovereignty shall (ever again) be allowed to permit any state to deprive men and women within its borders of the rights established by it.

The provisions of this International Bill of Rights shall be deemed fundamental principles of International law and of the national law of each of the member states of the United Nations to be realized by appropriate action of international and national agencies. Respect for these principles is therefore a matter of international concern and it shall be within the jurisdiction of the U.N. to discuss any violation thereof.

It is the duty of the state to respect and maintain the rights enunciated in this Bill of Rights.

[Appears upside down at the bottom of the page]

Sheet 4 (Verso of sheet 3).

This right can be denied only when the person concerned has been convicted under general law of some crime against society to which the death penalty is attached.

[This is an addition to 3 on sheet 1, becoming the second sentence of Article V of the first typed draft]

No one shall be subjected to torture or to any unusual punishment, *torture or* or indignity.

[Text for aide-mémoire on torture on sheet 1 and became Article VI of first typed draft]

[The remaining two paragraphs appear upside-down at the bottom of the sheet]

The enjoyment of rights

Every one, moreover, owes a duty of loyalty to the society *whether* both national *or* and international of which he forms part. He must accept his just share of responsibility for the performance of social duties and *accept* also his

share of any *common* sacrifice made necessary by the exigencies of life in common.

[Variant text for 1b on sheet 1]

Sheet 5

There shall be full equality before the law in the enjoyment of the rights enunciated in this Bill of Rights and no one shall suffer any discrimination whatsoever because of race, sex, language or religion.

[Cf. Article XXXVII of first typed draft]

Having regard to UNESCO
UNESCO is, of course, interested in the freedom of information and has expressed a desire to *cooperate with the U.N.* be represented at the proposed int. conference on that subject.
Under

The Council may therefore wish to request the G.A. to change the date of the

[These notes refer to the possible rescheduling of the International Conference on Freedom of Information (eventually held at Geneva in March – April 1948), given UNESCO's expressed interest. Having nothing to do with the draft they probably represent some work interruption and the utilization of a handy piece of paper[35]]

Sheet 6 (Verso of sheet 5)

Every one has a right to own personal property. His right to share in the ownership of industrial, commercial and other profit-making enterprises is governed by the laws of the State of which he is a citizen.

[Cf. Article XXII, sheet 12]

Every one shall

[This probably represented the start of Article IX (see infra) since this is the only article in the first typed draft beginning with these three words]

[The remaining two paragraphs are written upside-down at the bottom]

and to live in healthy pleasant surroundings.

[this hanging phrase is written in ink and represents concluding phraseology, eventually not used, for Article XXXI]

Every one has the right to good food and *to* housing, and to live in surroundings that are pleasant and healthy.

[Article XXXI of first typed draft]

Sheet 7

Subject to the laws governing slander and libel there shall be full freedom of speech and of expression by any means whatsoever, and there shall be reasonable access to all channels of *information* communications. Censorship shall not be permitted, [one illegible word erased]

[Cf. Article XVIII, sheet 11]

There shall be free access to all sources of information both within and beyond the borders of the State.

[This erasure became Article XVII, Sheet 10]

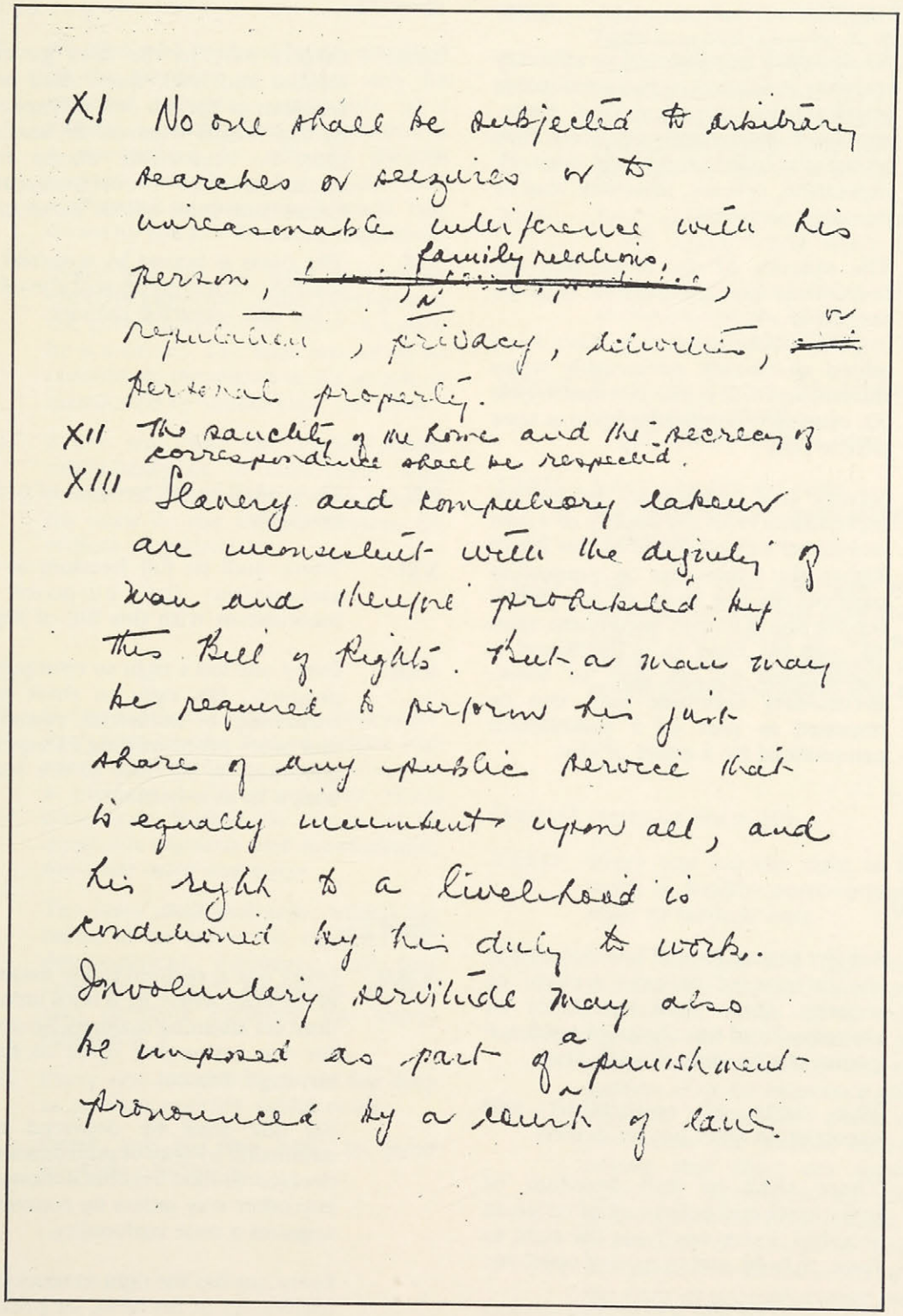
The press is bound by a sacred duty towards society to present the news in a fair and impartial manner.

[Cf. Article XIX, Sheet 11]

Sheet 8

[At this point draft articles are given Roman numerals beginning with X]

X. No one shall be convicted of crime except for violation of a law in effect at the time of the commission of the act charged as an offense [text corrected from "offence" to reflect this spelling], nor be subjected to a penalty greater than that applicable at the time of the commission of the offense.


XI No one shall be subjected to arbitrary searches or seizures or to unreasonable interference with his person, ~~[illegible]~~ family relations, reputation, privacy, domicile, or personal property.

XII The sanctity of the home and the secrecy of correspondence shall be respected.

XIII Slavery and compulsory labour are inconsistent with the dignity of man and therefore prohibited by this Bill of Rights. But a man may be required to perform his just share of any public service that is equally incumbent upon all, and his right to a livelihood is conditioned by his duty to work. Involuntary servitude may also be imposed as part of a punishment pronounced by a court of law.

Figure 3. Sheet IX of the manuscript draft. Courtesy of McGill University Law Library.

Sheet 9 (Figure 3)

XI. No one shall be subjected to arbitrary searches or seizures or to unreasonable interferences with his person, *home, correspondence* family relations, [this phrase was substituted for the erasure], reputation, privacy, activities, *and* or personal property.

XII. The sanctity of the home and the secrecy of correspondence shall be respected.

[This clause appears to have been added afterwards, presumably when the concept was removed from Article XI, causing renumbering up to at least Article XX]

XIII. Slavery and compulsory labour are inconsistent with the dignity of a man and therefore prohibited by this Bill of Rights. But a man may be required to perform his just share of any public service that is equally incumbent upon all, and his right to a livelihood is conditioned by his duty to work. Involuntary servitude may also be imposed as part of a punishment pronounced by a court of law.

Sheet 10

XIV. Subject to any general law adopted in the interest of national welfare or security, there shall be liberty of movement and free choice of residence within the borders of each State.

XV. The right of emigration and expatriation shall not be denied.

XVI. There shall be full freedom of conscience and belief and of religious worship. Every one[36] has the right to form, to hold, and to receive opinions.

XVII. There shall be free access to all services of information both within and beyond the borders of the State.

Sheet 11

XVIII. Subject only to the laws governing slander and libel, there shall be full freedom of speech and of expression by any means whatsoever, and there shall be reasonable access to all channels of communication. Censorship shall not be permitted.

XIX. The press is bound by a sacred duty towards society to present the news in a fair and impartial manner.

Sheet 12

XX. There shall be full freedom of peaceful assembly.

XXI. There shall be full freedom to form association for purposes not inconsistent with this Bill of Rights.

XXII. Every one has a right to own personal property. His right to share in the ownership of industrial, commercial and other profit-making enterprises is governed by the law of the State of which he is a citizen.

Sheet 13

XXIII. Every one is entitled to the nationality of the State where he is born unless and until on attaining majority he declares for the nationality open to him by virtue of descent.

No one shall be deprived of his nationality by way of punishment or be deemed to have lost his nationality in any other way unless he concurrently acquires a new nationality.

Every one has the right to renounce the nationality of his birth, or previously acquired nationality, upon acquiring the nationality of another State.

Sheet 14

XXIV. No alien who has been legally admitted to the territory of a State may be expelled except in pursuance of a judicial decision or recommendation as a punishment for offences [British variant used here but transcribed "offenses" in first typed draft] laid down by law as warranting expulsion.

XXV. Every one has the right to take an effective [adjective added later] part in the government of the State of which he is a citizen. The State has a duty to conform to the wishes of the people as manifested by democratic elections.

XXVI. Every one has the right, either individually or in association with others, to petition the government of his State or the United Nations for redress of grievances.

Sheet 15

XXVII. Every one has the right to education. Each State has the duty to require that every child within its territory receive a primary [adjective added later] education. *Within the limits of its economic capacity and development, the State must maintain*

The State shall maintain, within the limits of its economic capacity and development, adequate and free facilities for such education. It shall also promote facilities for higher education.

XXVIII. Every one has the right and the duty to perform socially useful work.

XXIX. Every one has the right to good working conditions.

Sheet 16

XXX. Every one is entitled to adequate food and housing.

XXXI. *Every one has the* [change from "a"] *right to social security. To this end the State must promote measures* [measures was erased earlier than the remainder of the paragraph.] *public health and safety. This right includes the right to health in so far as*

XXXI. Every one has the right to leisure.
[Cf. Article XXXI, Sheet 18]

XXXII. Every one has the right to culture and to the enjoyment of the arts.
[Cf. Article XXXII, Sheet 18]

XXXIII. Every one has the right to share in the benefits of science.
[Cf. Article XXXIII, Sheet 18]

XXXIV. *Every one has the right*
The State shall promote public health and safety.

XXXIV. *Every one has the right to social security. To this end each State shall within the limits of its economic capacity and development promote public health and safety, and establish*

Sheet 17 (verso of Sheet 16)

XXXIV. Every one has the right to live and work in healthy surroundings and a right to medical care.

XXXV. Every one has the right to social security. To this end, each State shall, within the limits of its economic capacity and development, promote public health and safety. *and establish systems of social insurance and social agencies* It shall also *make effective provisions for public* maintain *or ensure that there are maintained* effective arrangements for the prevention of unemployment, for the provision of adequate insurance *compensation in the event of* against the risks of unemployment, accident, disability, ill health, sickness, old age or other involuntary loss of livelihood. *including*

Sheet 18

XXX. Every one has the right to a *fair share reasonable reasonable* just wage and standard of living.

[This is the last entry in pencil, the remainder of the manuscript being in ink]

XXX. Every one is entitled to adequate food and housing.

XXXI. Every one has the right to a fair share of rest and leisure.

[Article XXXII of first typed draft]

XXXII. Every one has the right to participate in the cultural life of the community and to enjoy the arts.

[Article XXXIII of first typed draft]

XXXIII. Every one has the right to share in the benefits of science.

[Article XXXIV of first typed draft]

XXXIV. *Every one has the right to social security. To this end each State shall, within the limits of its economic capacity and when necessary in cooperation with other States,*

The remainder of the handwritten sheets are a table of contents or arrangement for subsequent drafts. The first typed draft, annotated but undated, contained 37 articles. The second typed draft of February 27, 1947, also contained 37 articles. It was not until the third typed draft, annotated as "shown to Mrs. Roosevelt Feb 28, 1947" (Figure 4), that the document expanded to 50 articles and followed the arrangement noted above. It is clear, therefore, that these remaining five sheets were prepared for the third typed draft or an even later document and did not form part of the original draft.[37]

The First Typed Draft

The first typed draft indicates what parts of the manuscript were used, what were discarded and what are probably missing. Only those parts which are new or indicate the text Humphrey ultimately preferred, for example how he solved the obviously thorny problem of the right to social security, are given below. Also included are the annotations Humphrey made on the draft.

The introductory matters are quite different from the manuscript and read as follows:

The Preamble shall refer to the four freedoms and to the provisions of the Charter relating to human rights and shall enunciate the following principles:

1. that there can be no peace unless human rights and freedoms are respected;

2. that man does not have rights only; he owes duties to the society of which he forms part;

3. that man is a citizen both of his State and of the world.

Article I is as it appears on sheet 1 – Humphrey changed the first word of the second sentence "Its observance" becoming "Their observance". He added the marginal annotation "Bring in as last paragraph".

Article II, 1a on Sheet 1, has the marginal annotation "Bring in as penultimate paragraph." Humphrey also added a second sentence as follows:

> The State shall, when necessary, cooperate with other States to this end.

Articles III to VII appear as noted on the manuscript sheets.

Article VIII does not form part of the extant manuscript. The text reads:

> No one shall be deprived of his personal liberty save by a judgement of a regular court of law, in conformity with the law and after a fair public trial at which he has had an opportunity for a full hearing, or pending trial in accordance with the law and within a reasonable time after his arrest. Detention by purely executive order shall be unlawful except in time of national emergency.

3rd Draf
Shown to Mrs. Roosevelt, Feb. 28, 1947
Certain changes made March 3, including addition of art. 43a.

The Preamble shall refer to the four freedoms and to the provisions of the Charter relating to human rights and shall enunciate the following principles:

1. that there can be no peace unless human rights and freedoms are respected;
2. that man does not have rights only; he owes duties to the society of which he forms part;
3. that man is a citizen both of his State and of the world.
4. that there can be no human freedom or dignity unless war is abolished.

Mrs. R. suggested that the preamble also say that there can be no human rights without peace.

Preliminary dispositions

1. Every one owes a duty of loyalty to his State and to the ~~inter-national society of which he forms part~~ United Nation. He must accept his just share of responsibility for the performance of social duties and also his share of any common sacrifices ~~made necessary by the exigencies of life in common.~~

2. In the exercise of his rights every one is limited by the rights of others and by the just requirements ~~of the democratic~~ His State and of the United Nations.

Right to life, etc.

3. Every one has the right to life. This right can be denied only to persons who have been convicted under general law of some crime against society to which the death penalty is attached.

4. No one shall be subjected to torture, or to any unusual punishment or indignity.

Figure 4. First page of the third typed draft.
Courtesy of McGill University Law Library.

Humphrey altered the conclusion of the first sentence to read "...full hearing, or pending his trial which must take place within a reasonable time after his arrest."

Article IX which is also not found in the manuscript, reads:

> Every one shall be protected against arbitrary and unauthorized arrest. He shall have the right to immediate judicial determination of the legality of any detention to which he may be subject.

Articles X to XXIX were typed exactly as they appear in the manuscript. Humphrey added one "therefrom" to Article XXIV the relevant part of which then read "... territory of a State may be expelled therefrom except in pursuance..."

Article XXX differs substantially from the manuscript and reads:

> Every one has the right to such equitable share of the national income and wealth as the need for his work and the increment it makes to the common welfare may justify.

Article XXXI appears on sheet 6 and Articles XXXII to XXXIV on sheet 18.

The concept of Article XXXV was originally part of Article XXXIV (see sheet 17) but now stands on its own as:

> Every one has the right to medical care.

Article XXXVI dealt with social security. This was the concept which interrupted the free flow of ideas in the manuscript draft, which from Article X to XXIX had been remarkably coherent and polished. The final text reads:

> Every one has the right to social security. The State shall promote public health and safety and shall maintain effective arrangements for the prevention of unemployment and for insurance against the risks of unemployment, accident, disability, sickness, old age and other involuntary or undeserved loss of livelihood.

Article XXXVII embraces the concept of non-discrimination noted on sheet 5. The final text reads:

> There shall be full equality before the law in the employment of the rights enunciated in this Bill of Rights. In particular, no one shall suffer any discrimination whatsoever because of race, sex, language, religion, or political creed.

Conclusion

It appears clear that the first draft of what became the Universal Declaration of Human Rights was written not by Cassin in June 1947, but by Humphrey in the preceding February. The Humphrey draft was solicited by the Drafting Group of the Commission on Human Rights for the express purpose of being the departure point for drafting the International Bill of Human Rights. It was also used by Cassin when he wrote his subsequent draft. These conclusions seem inescapable based on the documentation and the historic record. The only sense in which Cassin can be said to be the author of the first draft would be if his draft were quite original, not derivative, and formed the exclusive basis of discussion for the subsequent activities of the Drafting Committee. However, this is doubtful and, indeed, the U.N.'s published history of the events made it clear that the Secretariat Outline came first and was equally prominent with several other drafts in the discussions.[38]

The most significant support for the Humphrey claim comes, oddly enough, from Cassin himself. In one of his earlier articles, a carefully documented study written soon after the events, his description closely parallels the Humphrey version and the official U.N. record. He was accurate on such things as the facts that the Drafting Committee first met on June 9, that the Rapporteur was Charles Malik, that Giraud's role was secondary to Humphrey's, and that his own role was to "présenter, seul,... un projet ordonné de déclaration tenant compte des travaux du secrétariat..." He noted that Roosevelt had established the February Drafting Group to "élaborer, avec le concours du secrétariat, un premier avant-projet de

déclaration..." Of his own draft, which he consistently termed a "projet" not an "avant-projet", Cassin noted that it did contain some new material. Specifically he stated "Ce projet précédé d'un Préambule et d'une partie générale entièrement neufs..."[39] All of this appears generally consistent with the events and contrary to his later recollections.

René Cassin did not get the Nobel Peace Prize for writing the first draft of the Universal Declaration. He received it deservedly for a lifetime of dedication and effort to the cause of human rights, including his share in the drafting of the Declaration. It is not clear why he claimed to have authored the first draft although several possibilities suggest themselves.[40] Nor is it clear why the claim, so evidently at variance with the record, has been so readily accepted. Malik was clearly disturbed by some of the "facts" quoted in the plethora of articles which came out in 1967 and 1968. In this regard he wrote:

> The complete story of how each provision actually arose can never be told, because the actual, living, dynamic process of genesis can never be recaptured or reproduced. And the claims made and published about some provisions are not altogether true, as can be shown by a more thorough research into the available documents, and especially by reference to some unpublished diaries. It seems that the Declaration has already generated, especially in the Human Rights Year of 1968, a great deal of interest, and therefore the authoritative writing up of its total story could claim the attention of some of us who knew more about the truth of the matter than others.[41]

Malik does not appear to have written much on the drafting process beyond these few tantalizing remarks. One wonders to which published claims and unpublished diaries he is referring.

Yet the facts appear clear. Truth, we are told by Aulus Gellius[42] citing some other poet whose name he had forgotten, is the Daughter of Time. Cassin died full of honours after a lifetime of public service, and nothing should detract from this. Yet Time will almost certainly show that John Humphrey deserves the credit for composing the first draft. However, Humphrey feels that such credit is inappropriate and that the universality of the Declaration transcends the need for recognition of the contributions of individuals. He articulated this view as follows:

> The Universal Declaration of Human Rights has no father in the sense that Jefferson was the father of the American Declaration of Independence. Very many people – in the Commission on Human Rights, in its drafting Committee, in the Commission on the Status of Women, in the two subcommissions, in the specialized agencies, in departments of national governments and in the non-governmental organizations – contributed to the final result. It is indeed this very anonymity which gives the Declaration some of its great prestige and authority.[43]

Perhaps it is just that Humphrey should have the last word on the issue.

* * * * *

Notes

1. *New York Times*, 10 October 1968, p. 1, quoting from Nobel telegram.

2. René Cassin, "How the Charter on Human Rights was born," *UNESCO Courier*, XXI (January, 1968), p. 4, and his "Quelques souvenirs sur la Déclaration universelle de 1948," *Revue de droit contemporain*, XV.1 (1968), p. 6.

3. Cassin, "How the Charter...," p. 4.

4. Cassin, "Quelques souvenirs...," p. 5.

5. Cassin, "Quelques souvenirs...," p. 6.

6. Humphrey (1905-) is a graduate of McGill University and has been on its Law Faculty since 1936. From 1946-66 he was Director of the Division of Human Rights, U.N. Secretariat. His dissenting view on the first draft has become increasingly explicit in his various publications over the years, and is most fully explained in his monograph *Human Rights & the United Nations: a Great Adventure* (Dobbs Ferry, N. Y., Transnational Publishers, 1984).

7. United Nations Commission on Human Rights, "Report," *Economic and Social Council Official Records*, 2nd Year, 4th Session, Supplement 3 (E/259), p. 2.

8. United Nations Commission on Human Rights, *Summary Record of the Twelfth Meeting* (Document E/CN.4/SR.12, February 3, 1947), p. 5.

9. René Cassin, "La Déclaration universelle et la mise en oeuvre des droits de l'Homme," *Receuil des Cours*, LXXIX. 2 (1951), p. 273.

10. United Nations Commission on Human Rights, *Summary Record of the Eleventh Meeting* (Document E/CN.4/SR 11, February 3, 1947), p. 4.

11. Document E/CN.4/SR12 cited at note 8, pp. 2-4.

12. United Nations General Assembly Third Session, *Verbatim Record of the One Hundredth and Eightieth Meeting* (Document A/PV.180, Dececember 9, 1948), p. 48.

13. Eleanor Roosevelt, *On My Own* (New York, Harper, 1958), p. 77. John P. Humphrey, "The Universal Declaration of Human Rights: Its History, Impact and Juridical Character," *Human Rights: Thirty Years after the Universal Declaration*, ed. B. G. Ramcharan (The Hague, Nijhoff, 1979), p. 23.

14. Document A/PV.180, cited at note 12, p. 47.

15. The text of Roosevelt's letter to the President of the Economic and Social Council (ECOSOC) appears in Commission on Human Rights, Drafting Committee, *Memorandum and Historical Background of the Committee* (E/CN.4/AC/1/2), p. 5-6. Humphrey felt the action might be illegal since only the Commission could change the composition of the Committee. Humphrey, "Universal Declaration...," p. 23.

16. Cassin, "Quelques Souvenirs...," p. 3. It is difficult to see how the latter criticism could apply to the first committee since Cassin wrote no texts for it. Perhaps this should be taken as a generalized critique of the whole early period or the way the *Summary Records* reported his verbal remarks.

17. The President of ECOSOC's reply is in Document E/325, p.2-3. His acceptance of Roosevelt's changed committee cleared up any questions of legality mentioned in note 15 since the Council was the Commission's superior body.

18. The actual documents, all of which contained the word "outline" in their title, submitted by Humphrey to the Drafting Committee were the following:

1. *Draft Outline of International Bill of Rights/Avant-projet de la déclaration internationale des droits de l'homme* (Document E/CN.4/1/3, June 4, 1947).

   The text of Humphrey's draft with official French translation and known as the Secretariat Outline.

2. *Documented Outline* (Document E/CN.4/AC/1/3/Add.1, June 2, 1947).

   408 pages of supporting documentation which contained observations by members of the Commission, draft declarations from Chile, Cuba and Panama, proposals from India and the U.S.A., and excerpts from many national constitutions and other documents on human rights. These arranged as a commentary on the Secretariat Outline, article by article.

3. *Plan of the Draft Outline of an International Bill of Rights* (Document E/CN.4/AC/1/3/Add.2, June 9, 1947).

   The conceptual arrangement of the Secretariat Outline the only true "outline" submitted.

4. *Document Outline* (Document E/CN.4/AC.1/3/Add.3, June 10, 1947).

   A textual comparison between the Secretariat Outline and a draft International Bill of Human Rights submitted by the United Kingdom, which was intended to be a convention.

19. Document A/PV 180 cited at note 12, p. 46.

20. United Nations Commission on Human Rights, Drafting Commitee, First Session. *Report of the Drafting Committee to the Commission on Human Rights* (Document E/CN.4/21 July 1, 1947), p. 4. There is some irony in the fact that the Secretariat Outline was drawn up by a single individual. It was simply an error on Cassin's part to state the request was made towards the "fin de mai". "Quelques souvenirs...," p. 5.

21. Giraud was one of Humphrey's assistants in the Division. Cassin does not mention his assistance, the only references to it being found in Humphrey's writings, e.g. *Human Rights...*, p. 42.

22. Cassin, "Quelques Souvenirs...," p. 6 and "How the Charter...," p. 4.

23. Marc Agi, *René Cassin: Fantassin des droits de l'homme* (Paris, Plon 1979), p. 221.

24. Humphrey, "Universal Declaration...," pp. 24-25. He goes into greater detail on the comparison in his *Human Rights...*, pp. 44-45.

25. Humphrey, *Human Rights...*, p. 31.

26. Document A/PV 180 cited at note 12, p. 46.

27. René Cassin, "Twenty Years after the Universal Declaration," *Journal of the International Commission of Jurists*, IX. 1 (1968), p. 1.

28. Agi, *René Cassin* p. 220 writes:

> Devant l'amas considérable de matériaux, il [Le Comité de redaction] désigne pour gagner du temps un rapporteur unique – en l'occurence René Cassin – et le charge de procéder au premier grand travel de dépouillement.

President Giscard d'Estaing also styled Cassin as Rapporteur in a letter to the President of L'Association pour la fidélité à la pensée de René Cassin, published in *Actualité de la pensée de René Cassin* (Paris, CNRS, 1981), p. 11.

29. Humphrey, *Human Rights...*, p. 43.

30. René Cassin, *La pensée et l'action* (Paris, Lalou, 1972).

31. These form a fraction of the Humphrey Human Rights Collection, which consists of the publications of the Commission on Human Rights, its sub-bodies, and the Economic and Social Council. Humphrey donated this major collection soon after his retirement from the Secretariat in1966 and it has been kept up-to-date. The manuscripts were separated from the main collection and placed in acid-free envelopes by Michael Renshawe, Law Area Librarian from 1976-88.

32. Humphrey acknowledges borrowing freely from these documents, in particular that of the American Law Institute. They are fully listed in his *Human Rights...*, pp. 31-32.

33. Humphrey, in reviewing a draft of this article could not confirm the dates nor did he have any recollection of showing a draft to Mrs. Roosevelt. Indeed he believed, as stated in his published work, that the drafting was done in late April or May in response to the request for an outline. He now accepts, since the dating on the mimeograph is conclusive, that the work was done prior to the expansion of the Drafting Committee on March 24 and in response to a request for a draft declaration. There was a marginal annotation on the third typed draft of a change suggested by Roosevelt which was incorporated into the fourth typed draft. It is likely, therefore, the dates were written at the time, or added very soon afterwards. See Figure 4.

34. It seems probable that the 6" x 9" sheets represented the draft given to the typist and that the first four or five of these are missing. These would cover the Preamble and Articles I to IX. However, this is no more than speculation.

35. Humphrey found that writing a draft in his office was practically impossible owing to interruptions. Eventually he was given a week's leave of absence to complete the task. *Human Rights...*, p. 31.

36. Humphrey intended that "every one" be spelled as two words, and his preference is reflected in this reproduction of the manuscript. However, on occasion the space between the two handwritten words is sufficiently imperceptible as to be read "everyone". In the first typed draft "everyone" is consistently used prior to this point and "every one" from here to the end. The two word variant appears in all subsequent drafts.

37. It is also possible, though less likely, that these sheers were written as late as June, being the draft for Document E/CN.4/AC/ 1/3Add.2 cited at note 14.

38. *These Rights and Freedoms* (New York, United Nations, 1950), p. 6ff.

39. Cassin, "La Déclaration universelle...," pp. 273-4.

40. It should be remembered that Cassin's assertions were were written mostly in the late 1960's when he was over eighty. His memory was evidently faulty on details. Doubtless his friends and colleagues also pressed his case as much as he did.

41. From his introduction to the pamphlet by Otto F. Nolde, *Free Equal: Human Rights in Ecumenical Perspective* (Geneva, World Council of Churches, 1968), p. 12. Malik never took up his own challenge to create an authoritative history. The U.N. attempted to write a legislative history for the twentieth anniversary of the Declaration, but the project was abandoned after three years. ECOSOC, *Council Resolutions*, 940 (XXXV) April 15, 1963. Annex I. 3e. and 1160 (XLI) August 5, 1966.

42. *Noctes Atticae*. Book XII, Chapter 11. "Alius quidem veterum poetarum, cuius nomen mihi nunc memoriae non est, Veritatem Temporis filiam esse dixit."

43. Humphrey, *Human Rights...*, p. 43.

44. Two pictures of Humphrey and Roosevelt, firstly at work on the Declaration and secondly sharing a joke in a more convivial setting. Reproduced courtesy of John Humphrey.

45. This publicity poster shows the Declaration in three languages with some of the principal architects superimposed. Seated in the foreground from left to right, are P.C. Chang, Henri Laugier (Assistant Secretary-General and Humphrey's immediate Superior), Eleanor Roosevelt, John Humphrey, Charles Malik and V.M. Koretsky of the U.S.S.R. In the background are some of Roosevelt's advisors from the State Department, including James Hendrick to Humphrey's immediate left. Cassin is not shown in this poster. Reproduced courtesy of John Humphrey.

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Acknowledgement

The author wishes to express his gratitude to colleagues in McGill University Libraries and Faculty of Law for their help in preparing this article.

The Gardens of the Lord: A Description of the Moravian Church in Labrador, and the Lande Collection, entitled "The Moravian Missions to the Eskimos of Labrador"

by Davena Davis

For almost two centuries the Moravian Church maintained a mission in Labrador to bring the Christian message to the Inuit and later to the European settlers living along Labrador's northern coast from Cape Harrison to Cape Chidley. Over the years several communities grew up around the mission stations at Nain, Hopedale, Ramah, Zoar and Makkovik. The missionaries of this small Protestant, originally German-speaking, denomination spent most of their adult years with the Inuit, ministering to them, teaching them and caring for their physical needs. Until 1926 they also dominated the import and export trade along the northern Labrador coast. Until recently, the mission staff maintained exhaustive records of the missions and of their business enterprise. In the 1960s all of this material (except parish registers) was removed from Labrador. Much of the library became the nucleus of the Lande Eskimo Collection which is a unique collection of primary and secondary material such as Inuktitut Scripture texts, catechisms and hymnals, basic reading and arithmetic aids, German-language history and geography books and several runs of mission periodicals.

Pendant près de deux siècles, l'église morave a tenu une mission au Labrador dans le but de christianiser les Inuit et, par la suite, les colonies d'Européens venus s'établir sur la côte nord du Labrador, entre Cap Harrison et Cap Chidley. Au fil des ans, plusieurs communautés se sont implantées autour des missions: Nain, Hopedale, Ramah, Zoar et Makkovik. Les missionnaires de ces petites communautés protestantes qui, à l'origine, s'exprimaient en allemand, ont consacré l'essentiel de leur vie aux Inuit, leur inculquant les rudiments de la foi, les éduquant et les soignant. Jusqu'en 1926, ils ont également exercé un contrôle étroit sur les importations et les exportations de la côte nord du Labrador. Jusqu'à dernièrement, les missionnaires ont tenu des rapports exhaustifs sur leurs différentes activités, aussi bien humanitaires que commerciales. Dans les années 1960, tous ces documents (à l'exception des registres paroissiaux) ont quitté le Labrador pour former l'essentiel de la collection eskimo Lande. Celle-ci réunit un ensemble unique de documents secondaires et primaires, notamment des textes en inuktitut, des catéchismes et des hymnes, des manuels de lecture et de mathématiques, des livres d'histoire et de géographie en allemand et plusieurs périodiques traitant des missions.

* * * * *

Figure 1. The Labrador coast in the 1890s. *Atlas der Brüdergemeine*. Herrhut: Expedition der Missionsverwaltung, 1895. (Esk 68).

> Sheltered from the north, and nestled in a small valley where a few trees gave some signs of life and beauty to the otherwise barren scenery, were placed a number of buildings. These consisted of a dwelling house, a church, stores and a shed for wood....
>
> The fine spacious church, so plain and so clean, was just suited to the needs of the Eskimo. The dwelling-house is built in a strong, substantial manner, and every room is utilized to the best advantage.... My wonder grew deeper still when I went into the garden, where a number of choice vegetables were growing....[1]

In the summer of 1909 Edmund J. Peck, a missionary in the employ of the Church of England's Church Missionary Society,[2] was en route to Baffin Island where the CMS had had a mission to the Inuit since 1894. The ship on which he was travelling made several stops, one of which was at Hopedale, a village on the coast of Labrador. Peck, like many missionaries, kept a journal of his experiences as evidenced by the brief entry above.

The Mission

Hopedale was one of several Inuit communities established by the missionaries of the Moravian Church. A number of other communities or villages along the northern coast of Labrador were also settled at the instigation of the Moravian missionaries: Nain (1771), Okak (1775), Hebron (1830), Zoar (1864 or 1866) and Ramah (1871). Hopedale itself dates from 1782.[3]

As early as 1752 the Moravians had shown an interest in establishing a mission in Labrador. By this time they had had the opportunity to see the results of their evangelization in Greenland begun some twenty years before. The first attempt to set up a mission in Labrador ended in disaster, however, with the death of four missionaries at the hands of some Inuit. By 1771, through the efforts of one or two determined missionaries and several influential British Moravians, permission had been secured from the British Privy Council for the founding of a mission in Labrador. Nain was established first, with Okak and Hopedale following in the next decade (Figure 1).

Apart from the building of these three centres, the real work of the mission, the evangelization of the Inuit, progressed slowly. At the beginning the Inuit were reluctant to exchange their religion and their customs for those of the Europeans newly arrived in their midst. However, in 1804 there took place what has been called an "awakening," and several Inuit presented themselves for baptism. From that time on, the efforts of the missionaries met with success; the Inuit living in and around the Moravian villages were all Christians. For Peck, who was attempting a century later to do the same work among the Baffin Island Inuit, the sight of a Christian Inuit population and a well-established mission was encouraging indeed.

Others view the mission less favourably.[4] A major criticism of the Moravian missionary activity in Labrador (as in west Greenland where the church also had a mission) focuses on the Church's policy of concentrating population in villages around the mission stations. This was contrary to the traditional nomadic lifestyle of the Inuit, and is thought to have contributed to the declining Inuit population in northern Labrador. On the other hand, by what other means could the missionaries have accomplished their goal? An interpretation of the mission which is satisfactory to all, and does justice to the intent of the missionaries, is difficult to reach.

The missionaries' goal was two-fold. Clearly, sharing the Christian gospel was the overwhelming objective. Moravians had been filled with missionary zeal since 1731. To use the twentieth-century term, "missionary outreach" was one result of a spiritual renewal which had taken place on August 13, 1727, among a community of Protestants in Herrnhut, Saxony, Germany. "Renewal" in this case was not merely spiritual re-birth, it was also the re-birth of a church which had come into existence some three centuries earlier and had virtually disappeared after the Thirty Years' War (1618-1648). Among the community at Herrnhut were several Moravians and Bohemians who considered themselves descendants of the Moravian Brethren, the name adopted by some of the followers of Jan Hus (1371-1415) who was

condemned by the Council of Constance and executed. The Herrnhut community had been formed through the initiative of Nicolaus Ludwig von Zinzendorf (1700-1760), a Lutheran Pietist. In 1722 Zinzendorf offered asylum to several Protestant Moravian and Bohemian families who were living in territories which, since 1627, had disallowed freedom of worship. Secret observance allowed some vestiges of Protestantism to endure. Thus through the spiritual experience of August 13, 1727, the community at Herrnhut became the renewed Church of the Unity of the Brethren or Unitas Fratrum, Moravian Brethren or Moravian Church. It is by the latter name that this denomination is best known today in Great Britain and North America.

That religious experience re-shaped the whole community. They drew more adherents and, in the years of the religious awakening in Europe and North America in the eighteenth century, spread throughout central and western Europe, Great Britain, the West Indies and America. The first missionaries went to the West Indies in 1732; a mission to Greenland was established in 1733; and, as mentioned above, a mission in Labrador was attempted as early as 1752.[5]

The secondary goal in Labrador (as in a few other of their missions) was the operation of a business. In Labrador a Moravian business enterprise, the Society for the Furtherance of the Gospel (SFG) held a monopoly on trade with the Inuit. The SFG, through the missionaries, controlled the stores in which the Inuit traded or sold their yearly harvest of fur and fish. The SFG determined the imports and exports from the Labrador coast north of Cape Harrison and set the prices based on the London market (Figure 2).

This encroachment of the secular world into the spiritual has been another area of criticism in recent years and gradually came to be questioned by many of the Moravians themselves. Ostensibly, the trade carried on with the Inuit was to develop in them a notion of thrift and to save them from dealings with unscrupulous traders. The profits, when there were profits, defrayed the cost of this expensive northern mission. According to the records, however, losses were more common than profits.[6] By the late nineteenth century, it was becoming clear that the business enterprise was not achieving its aims. The Inuit were travelling south to trade with private traders and with the Hudson's Bay Company; they were gravely indebted to the SFG as well as to other trading companies; and the business was operating at a loss. However, the decision to withdraw from trade was not made until 1926, when the entire business enterprise was transferred to the Hudson's Bay Company.

Poor years were not uncommon on the Labrador coast. Life was harsh for everyone – Inuit, settlers[7] and missionaries alike. The privations of the missionaries were not those of the Inuit nor of the settlers; they had a permanent building in which to live, enough wood to heat it and sufficient, if not excessive, food. And, as the Anglican missionary Peck observed, they had fresh vegetables. They lacked none of the basic necessities of life, but the so-called luxuries – friends, family, privacy, freedom – were abandoned to missionary service. Postings, at least to Labrador, were normally for periods of between thirty and forty years. In Labrador the missionaries endeavoured to become integrated and identified with the native community. Short-term stays and frequent furloughs would have been inconsistent with Moravian missionary philosophy.

Each station had a staff of at least one couple; the larger stations had two or three couples with, from time to time, an unmarried man. Common housing was the practice until early in this century with only one dwelling house at each station. The household chores were shared in turn. Children were sent away to Moravian boarding schools in Europe as soon as they were of an age to travel.

The Moravian lifestyle was an expression of their faith. Daily personal and family prayers, Bible-reading, a sober and earnest demeanour typified the Moravian lifestyle. Traditional Moravian worship services were distinctive with a strong musical component. Up to a point, the missionaries endeavoured to shape the Inuit along Moravian lines. To what extent they attempted this and to what extent they succeeded are two more difficult and complex questions about this mission. The more perceptive of the missionaries realized that their role was not to make European Christians out of the Labrador Inuit. They did expect, however,

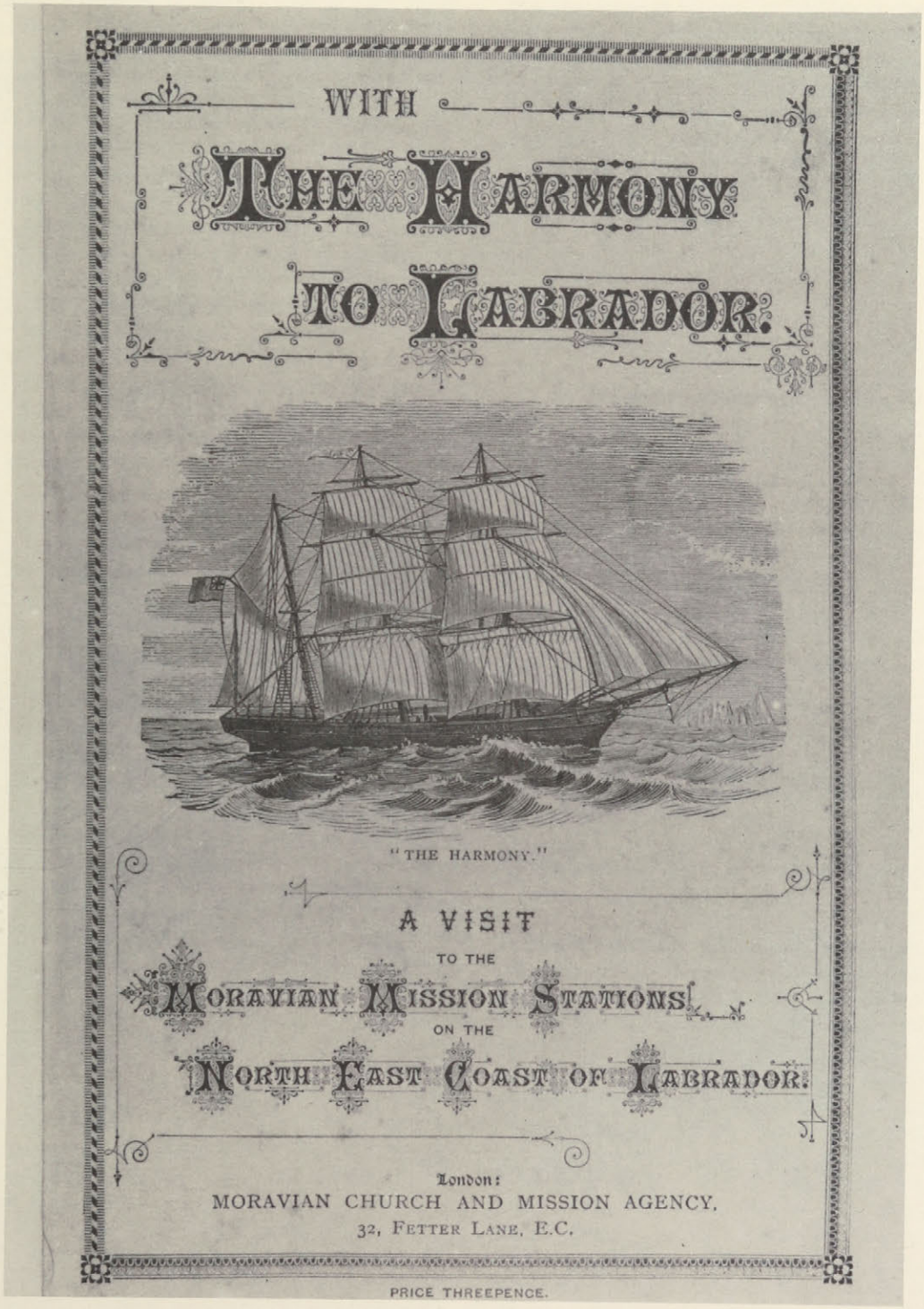
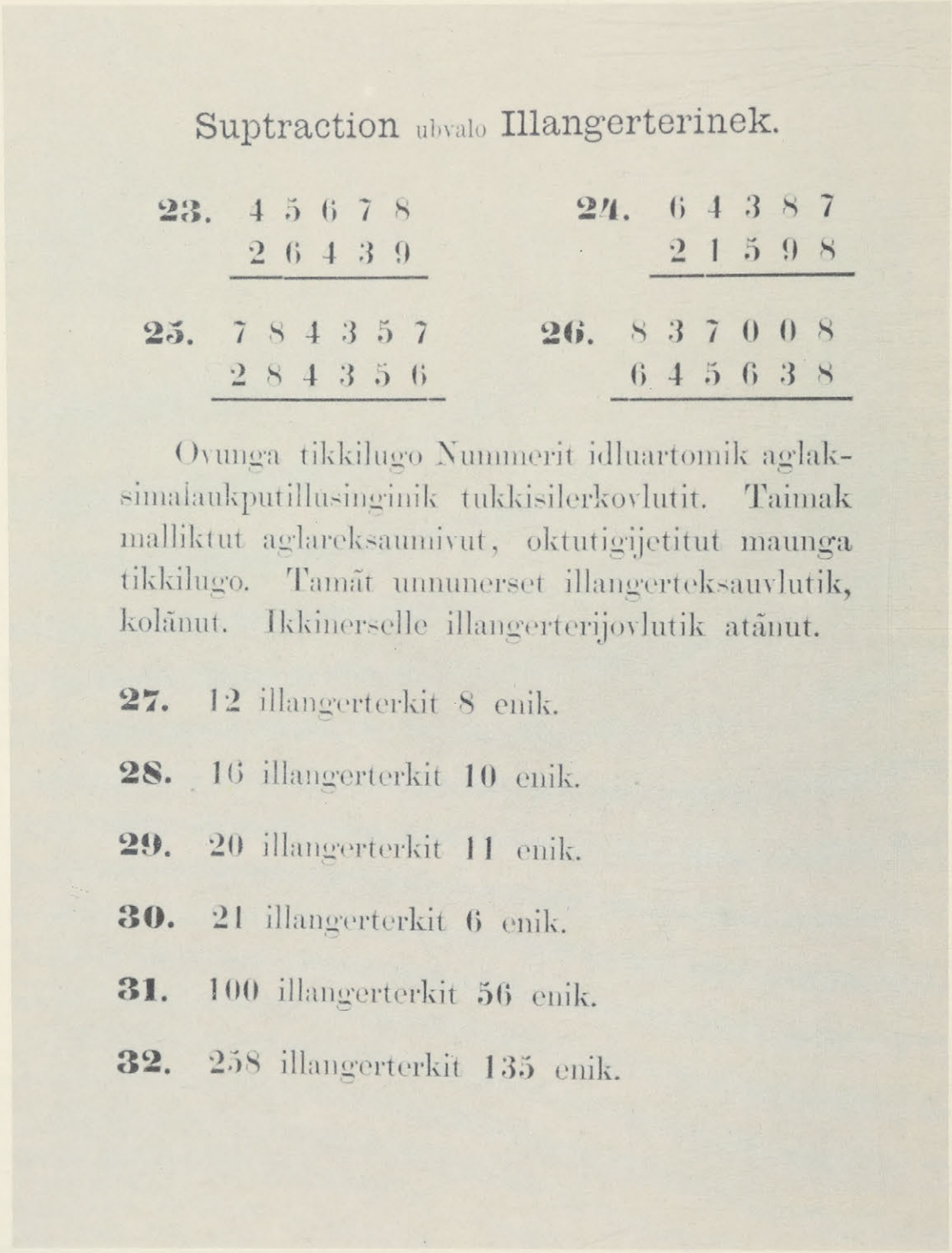


Figure 2. The Rev. Bejamin La Trobe's account of his visit to Labrador, ca. 1888. (Esk 65).



Suptraction ubvalo Illangerterinek.

23. 4 5 6 7 8
2 6 4 3 9

24. 6 4 3 8 7
2 1 5 9 8

25. 7 8 4 3 5 7
2 8 4 3 5 6

26. 8 3 7 0 0 8
6 4 5 6 3 8

Ovunga tikkilugo Nunnerit idluartomik aglaksimalaukputillusinginik tukkisilerkovlutit. Taimak malliktut aglareksaumivut, oktutigijetitut maunga tikkilugo. Tamãt unnunerset illangerteksauvlutik, kolãnut. Ikkinerselle illangerterijovlutik atãnut.

27. 12 illangerterkit 8 enik.

28. 16 illangerterkit 10 enik.

29. 20 illangerterkit 11 enik.

30. 21 illangerterkit 6 enik.

31. 100 illangerterkit 56 enik.

32. 258 illangerterkit 135 enik.

Figure 3. Subtraction flashcard. 186? (Esk 32).

to make Christians of them, and in this they succeeded. Nevertheless, on both sides expectations of behaviour were constantly changing.

This became especially critical by the late nineteenth century when the missionaries ceased to be the only Europeans with whom the Inuit came into contact. The northern Labrador coast was becoming accessible to fishermen, explorers and adventurers. The tenor of life began to change, and no longer were the Moravians the influence they had been. The First World War, the transfer of the business enterprise from the SFG to Hudson's Bay Company in 1926, the involvement of the Newfoundland government in Labrador in the 1920s and 1930s and radio communication completely altered the life of the missions and of the Inuit.

The spiritual and temporal centre of the Moravian Church had been at Herrnhut since its founding although the Church had spread into Great Britain and the United States. The majority of missionaries stationed in Labrador were German-speaking and were subjects of Kaiser Wilhelm II when the First World War broke out. The hostilities affected northern Labrador very little and with a few exceptions the missionaries stayed at their posts, but after the War the vast Moravian missionary enterprise was divided along political lines; the British Moravian Church became responsible for all Moravian missions within the existing British empire. In Labrador the staff gradually changed.

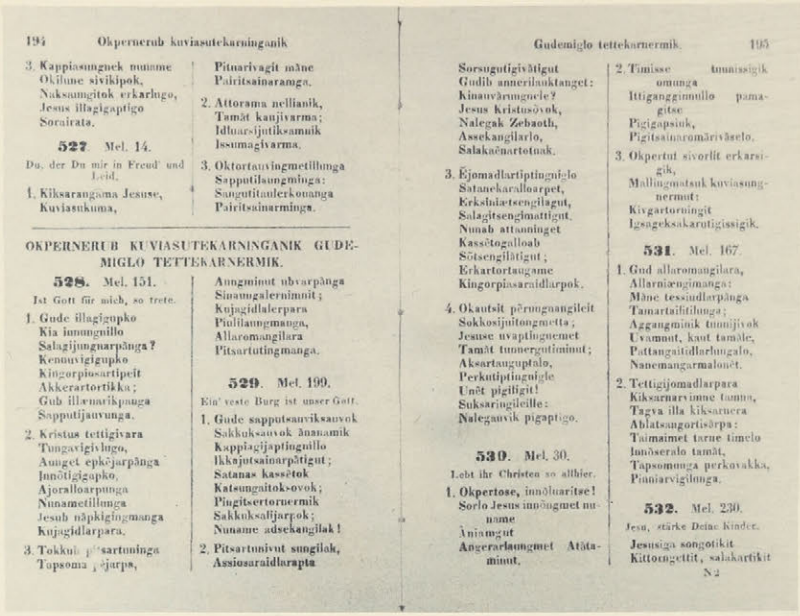
At the present time, the Moravian communities in Labrador are affiliated with the American Moravian Church whose northern headquarters are located in Bethlehem, Pennsylvania.

The Collection

In the early 1960s, records (excluding parish registers) dating back to the 1700s were microfilmed by the Public Archives of Canada and transferred from the various Labrador mission stations to the Moravian Archives in Bethlehem. The missionaries kept thorough records which are of great value to researchers and historians interested in northern Labrador.[8] A station diary which recorded the spiritual and economic progress (and sometimes relapse) of the community, annual conference letters from the missions and annual letters from the mission headquarters in Herrnhut and from the SFG are among the records transferred. All give a picture of life at the missions year by year, together with annual mission or commercial policies. Voluminous correspondence was carried on between the missionaries in Labrador and mission authorities in Herrnhut and with the SFG in London. Copies were retained at the time of writing, and these, too, offer readers an intimate view of life in Labrador from the 1700s to the late 1950s.

At about the same time as the records were transferred to Bethlehem, the collection of books and periodicals which the missionaries had acquired over almost two hundred years was dispersed among several sources. The Moravian Mission to the Eskimos of Labrador, a collection of some two hundred titles reflecting the broad range of interests and backgrounds of the missionaries stationed over the years at the various mission stations, is one of the results of this dispersal.[9] The Moravian Collection forms part of the Lawrence Lande Collection of Canadiana in the Department of Rare Books and Special Collections, McLennan Library. Included are the expected scriptures translated into Inuktitut and catechisms in the same language.[10] A few examples of the liturgies for which the Moravian Church is renowned are also present in the collection, together with hymnals in Inuktitut and some German (Figure 3). Music played an important part in the public and private worship of both the missionaries and the Labrador Inuit.

Apart from aids to worship and devotional literature, the Moravian Collection reflects the missionaries' commitment to education – both the furtherance of their own, and that of the people to whom they were ministering. There are a few German language history and geography books perhaps intended as "continuing education" but possibly purchased as source material from which to teach the Inuit. Basic arithmetic and reading books and cards were prepared by the missionaries and printed either on site or in London or at one of the Moravian publishing houses in Europe (Figure 4). The missionaries encouraged the Inuit to develop reading and writing skills in their own language, but did not actively teach English, the language of the European settlers and traders in Labrador, until this century. For most of the



194 Okpernerub kuviasutekarninganik

3. Kappiasungnek nuname Okilune sivikipok, Nuksungitok erkarlugo, Jesus illagigaptigo Sorairata.

527. Mel. 14.

Du, der Du mir in Freud' und Leid.

1. Kiksarangama Jesuse, Kuviasukuma, Pitnarivagit mâne Pairitsainaramga.

2. Attorama nellianik, Tamât kanjivarma; Idluarsijutiksamnik Issumagivarma.

3. Oktortauvingmetillunga Sapputilaungminga: Sangutitaulerkounanga Pairitsainarminga.

OKPERNERUB KUVIASUTEKARNINGANIK GUDEMIGLO TETTEKARNERMIK.

528. Mel. 151.

Ist Gott für mich, so trete.

1. Gude illagigupko Kia innungnillo Salagijungnarpânga? Kennuvigigupko Kingorpiasartipeit Akkerartortikka; Gub illænarikpanga Sapputijauvunga.

2. Kristus tettigivara Tungavigivlugo, Aunget epkêjarpânga Innôtigigapko, Ajoralloarpunga Nunametillunga Jesub nâpkigingmanga Kujagidlarpara.

3. Tokkub p[illegible]sartuninga Tupsoma [illegible]ejarpa, Aungminut ubvarpânga Sinaungalerninnût; Kujagidlalerpara Piulilaungmanga, Allaromangilara Pitsartutingmanga.

529. Mel. 199.

Ein' feste Burg ist unser Gott.

1. Gude sapputsauviksauvok Sakkuksauvok ânanamik Kappiagijaptingnillo Ikkajutsainarpâtigut; Satanas kassêtok Katsungaitoksovok; Pingitsertornermik Sakkuksalijarpok; Nuname adsekangilak!

2. Pitsartunivut sungilak, Assiosaraidlarapta

Gudemiglo tettekarnermik. 195

Sorsugutigivâtigut Gudib annerilauktanget: Kinauvârungnele? Jesus Kristusôvok, Nalegak Zebaoth, Assekangilarlo, Salakaênartotnak.

3. Ejomadlartiptingniglo Satanekarâlloarpet, Erkshilætsengilagut, Salagitsengimattigut. Numab attauninget Kassêtogalloab Sôtsengilâtigut; Erkartortaugame Kingorpiasaraidlarpok.

4. Okautsit pêrungnangileit Sokkosijuitongmetta; Jesuse uvaptingnemet Tamât tunnergutiminut; Aksartauguptalo, Perkutiptingniglo Unêt pigiligit! Suksaringileille: Nalegauvik pigaptigo.

530. Mel. 30.

Lebt ihr Christen so allhier.

1. Okpertose, innôluaritse! Sorlo Jesus innôngmet nuname Ânisamgut Angerarlaungmet Atâtaminut.

2. Timisse tunaissigik umunga Ittiganggunnullo pamagitse Pigigapsiuk, Pigitsainaromârivâselo.

3. Okpertut sivorlit erkarsigik, Mallingmutsuk kuviasungnermut: Kivgartorningit Igsageksakarutigissigik.

531. Mel. 167.

1. God allaromangilara, Allarniærningmanga: Mâne tessiudlerpânga Tamartaiffilunga; Aggangminik tunnijivok Uvamnut, kaut tamâle, Pattangaitdlarlungalo, Nanemangarmalonêt.

2. Tettigijomadlarpara Kiksarnarvimne tamna, Tagva illa kiksarnera Ablatsangortisârpa: Taimaimet tarne timelo Innîseralo tamât, Tapsonunga perkovakka, Pinniarvigilunga.

532. Mel. 230.

Jesu, stärke Deine Kinder.

Jesusiga songotikit Kittorngettit, salakartikit

N 2

Figure 4. Luther's hymn "Ein feste Burg ist unser Gott" (No. 529) in Inuktitut. Imgerutit attorekst illagêktunnut Labradoremêtunnut. Loebaume: J.A. Duroldtib Nenilauktangit, 184? (Esk 26).

missionaries it was a second, if not unknown, language although it had been the custom even before this century to have one or two English-speaking couples on the staff. In the late 1800s it became evident to the Mission Board in Herrnhut and the SFG in London that there was a need to minister to the English-speaking settlers in the area around Makkovik. By 1893, the missionaries were offering the services of a Protestant church to the English-speaking settlers in the area.

The missionaries were also virtually the only suppliers on the northern Labrador coast of medicine and medical treatment until 1894, when Wilfred Grenfell made the first of many visits to the Labrador coast. The collection includes a number of medical books reflecting this responsibility; of particular interest is Joseph Romig's treatise, *A Medical Handbook for Missionaries in Cold Climates.*[11] Romig was an American Moravian doctor and missionary in Alaska, and this may well have been the first medical book of its type.

Missions, understandably, occupied an important place in the lives and interests of these missionaries, and the Moravian Collection contains a number of books about Protestant missions throughout the world. In this category, also, are several runs of mission periodicals, the most well-known being the Moravian periodical *Nachrichten aus der Brüdergemeine* (1819-1894). This contains accounts from all the Moravian missions, annual statistics and editorials from the Mission Board.[12] From time to time, a brief biography or autobiography of a missionary was included. It was a custom among Moravians to write (or have written) a *Lebenslauf*, a type of autobiography, paying particular attention to the person's spiritual development. Accounts of this sort provided spiritual edification to the readers of the *Nachrichten* and give twentieth-century mission historians an intimate glimpse into the mindset and world of an eighteenth-century Moravian missionary.

In the initial contact periods, Christian missionaries had to rely on interpreters for the dissemination of their message. Clearly this was not an ideal arrangement, and among their first tasks missionaries attempted to learn the language of the people to whom they were ministering. Grammars and dictionaries were for them language tools of the future. It was for

succeeding generations of missionaries to compile and publish such books. Now, indeed, all we know of a few of the languages of North America's native peoples comes from missionaries' grammars and dictionaries. The languages themselves are no longer spoken. Within the Moravian Collection is a *Grammar of the Language of the Lenni Lenape or Delaware Indians*,[13] compiled by David Zeisberger (1721-1808), a Moravian missionary to the Delaware (or Moravian) Indians, as well as Theodor Bourquin's *Grammatik der Eskimo-Sprache*.[14]

To appreciate the Moravian Collection fully requires some knowledge of the Labrador Inuit and/or a history of Protestant missions. For the uninitiated user, however, there are several basic texts available. Hamilton's *History of the Moravian Church*[15] remains the definitive history in the English language of the Moravian Church despite its tendency to gloss over past errors. Older histories of the Moravian mission enterprise, such as Spangenberg's *Account of the Manner in which the Protestant Church of the Unitas Fratrum, or United Brethren, Preach the Gospel*,[16] Loskiel's *History of the Moravian Mission Among the Indians in North America*[17] or the earlier edition of 1794[18] present other and more detailed pictures of the North American mission, one of several Moravian mission fields.

Conclusion

The Moravian Collection, although most certainly not the complete library of the Moravian missionaries in Labrador, offers the researcher a view of life at Hopedale or Nain or any of the other missions. For a study of the native peoples of Labrador or the missions there, it complements and augments very capably and creatively collections of similar material at the Centre for Newfoundland Studies at Memorial University of Newfoundland or the collection of primary and secondary materials at the Moravian Archives in Bethlehem, Pennsylvania.

The primary value of the collection lies in its contribution to the study of Christian missions to the native peoples of Canada. The Moravian mission to the Inuit of Labrador represents but a small part of the picture: Protestant and Roman Catholic missions dotted the Canadian landscape from east to west. To the north on Baffin Island, the mission directed by the Anglican Peck was instrumental in bringing Christianity to the Inuit in that part of Canada. To the south, in Ontario and the Maritimes, Christian missions brought the message of the Gospel, and of European life, to the Indians living there.

In this and the last century, missionaries were able to reach the hitherto unreachable native peoples in Canada's northwest. Roman Catholic and Protestant missionaries, by this time often themselves Canadians, travelled far into the north and northwest in order to share their faith with others. Gradually their story is becoming known and documented – like that of the Moravians in Labrador. Collections such as the Moravian Mission to the Eskimos of Labrador and its companion collection, the Canadian Indian Collection, provide the researcher with valuable primary and secondary source material relating to Canada's native peoples and the spread of Christianity among them.

* * * * *

Notes

1. Extract from the journal of the Rev. E. J. Peck from July 22, 1909 to Oct. 1, 1909. G.1, C.1/O 1909, No. 73. Archives, Church Missionary Society, University of Birmingham.

2. Peck was employed by the CMS although since 1908 the mission on Baffin Island was administered by the Anglican Bishop of the Diocese of Moosonee. G.1, C.1/P4 1906-26, 1930, Feb. 18, 1908. Archives, Church Missionary Society, University of Birmingham.

3. An examination of a recent map of Labrador will reveal that Zoar and Okak no longer exist. When the natural resources of an area became insufficient to meet the needs of that community for food, shelter and income, that community was closed.

4. Several theses and monographs have been written on the subject. The reader might wish to consult Diamond Jenness, *Eskimo Administration III. Labrador* (Montreal: Arctic Institute of North America, 1965); Helge Kleivan, *The Eskimos of Northeastern Labrador: a History of Eskimo-White Relations 1771-1955* (Oslo: Norsk Polarinstitutt, 1966); or Carol Brice-Bennett, "Two Opinions: Inuit and Moravian Missionaries in Labrador, 1804-1860" (thesis, Memorial University of Newfoundland, 1981).

5. A comprehensive account of the history of the Moravian Church may be found in J. T. Hamilton and K. G. Hamilton, *History of the Moravian Church: the Renewed Unitas Fratrum, 1722-1957* (Bethlehem, Pa.: Moravian Church in America, Interprovincial Board of Christian Education, c1967).

6. B. Richling, "Hard Times Them Times: an Interpretative Ethno-history of Inuit and Settlers in the Hopedale District of Northern Labrador, 1752-1977" (diss., McGill University, 1978).

7. Fishermen (usually of British or Irish origin) settled with their families along the coast of Labrador where they maintained a meagre existence. Their numbers remained relatively small until this century.

8. W. H. Whiteley, "Inventory of Moravian Mission Records from Labrador." (St. John's, Nfld.: Memorial University of Newfoundland, 1960 – typescript.)

9. Although listed in a descriptive catalogue, the collection has just recently been fully catalogued and made accessible through McGill's online catalogue (MUSE).

10. It might be noted that the Moravians used the Roman alphabet in transcribing the language of the Labrador Inuit, not syllabics as did many missionaries in the Canadian Arctic.

11. Joseph Romig. *A Medical Handbook for Missionaries in Cold Climates* (Philadelphia: Boericke & Tafel, 1904).

12. The English version, *Periodical Accounts* (1790-1970), one of the earliest and longest-lived missionary journals, gives much the same valuable information on the history of the Moravian missions worldwide. It is not included in the Moravian Collection.

13. David Zeisberger. *Grammar of the Language of the Lenni Lenape or Delware Indians.* (Philadelphia: James Key, 1830).

14. Theodor Bourquin. *Grammatik der Eskimo-Sprache...* (London: Moravian Mission Agency, 1891).

15. John Taylor Hamilton and Kenneth G. Hamilton. *History of the Moravian Church: The Renewed Unitas Fratrum, 1722-1957* (Bethlehem, Pa.: Interprovincial Board of Christian Education, Moravian Church in America, 1967).

16. August Gottlieb Spangenberg. *An Account of the Manner in which the Protestant Church of the Unitas Fratrum, or United Brethren, Preach the Gospel.* (London: H. Trapp, 1788).

17. George Henry Loskiel. *History of the Moravian Mission Among the Indians in North America* (London: T. Allman, 1838).

18. _____. *History of the Mission of the United Brethren Among the Indians of North America* (London: Brethren's Society for the Furtherance of the Gospel, 1794).

Arabic Calligraphy and the "Herbal" of al-Ghâfiqî: A Survey of Arabic Manuscripts at McGill University

by Adam Gacek

Rare book collections in the McGill University Libraries house a significant number of Oriental books, in addition to Western European works. Among them there are over 650 Islamic manuscripts. This is a brief survey of those manuscripts written in Arabic, irrespective of their provenance. The present article includes a list of signed calligraphs and a description of the "Herbal" of al-Ghâfiqî, two outstanding features of the Arabic collections.

En plus des ouvrages venant de l'Europe de l'Ouest, les collections de livres anciens des bibliothèques de l'université McGill comptent un nombre assez important de recueils orientaux. Parmi ceux-ci figurent plus de 650 manuscrits islamiques. Cet article donne un bref aperçu des manuscrits rédigés en arabe, quelle que soit leur provenance. La liste des calligraphies signées et une description de l'"Herbier" d'al-Ghâfiqî, deux fleurons des collections arabes, en font d'ailleurs partie.

The McGill University Libraries house four collections of Islamic manuscripts. The languages represented are Arabic, Persian, Ottoman Turkish and Urdu. These collections are located in McLennan Library, Islamic Studies Library, Osler Library and Blacker-Wood Library. Until now these manuscripts have received very little attention from scholars of Islamic studies. A large number of them have remained in obscurity since the 1920s due to insufficient cataloguing data. All together there are over 650 handwritten codices, 280 of which are in Arabic or Arabic and Persian. The Arabic manuscripts form a collection of approximately 290 individual compositions covering almost all of the traditional Islamic disciplines such as Qur'anic Studies, Tradition, Jurisprudence, Philosophy, Theology, Philology, Natural History, Medicine, Mathematics and Astronomy. In addition to the manuscripts, the Department of Rare Books and Special Collections in McLennan Library possesses a valuable collection of over 200 Arabic calligraphs and fragments (usually single leaves), some 82 of which are signed.

THE COLLECTIONS

1. Osler Collection

The Osler collection, which consists mainly of Arabic and Persian manuscripts, was obtained from Sir William Osler (1849-1919), a famous McGill professor, and from the ophthalmologist and ornithologist, Dr. Casey A. Wood (1856-1942), a McGill graduate. The manuscripts donated by Sir William Osler were acquired mainly from a great admirer of his, a certain Dr. M. Sa'eed of Hamadan (Iran). From the point of view of provenance, the manuscripts donated by Dr. Wood fall into two groups. The first group constitutes manuscripts originally collected during the period 1926-1927 by the Russian scholar Wladimir Ivanow (1886-1970), then cataloguer of Persian manuscripts at the Royal Asiatic Society of Bengal and formerly Curator of Persian manuscripts in the Imperial Library at St. Petersburgh. The second group is made up of the manuscripts acquired from the German physician and Arabist Dr. Max Meyerhof (1874-1945), who spent some thirty years practising medicine in Egypt.[1]

The Arabic manuscripts in the Osler collection number some 58 individual works (79 with copies thereof) and, with the exception of one codex, all are broadly within the field of medicine. There are two dated manuscripts going back to the 7th/13th century and one from the 8th/14th century. The most famous is the illustrated "Herbal" of al-Ghâfiqî (ms 7508) described below. The collection also counts among its other rare items a copy of *al-Muᶜâlajât al-buqrâṭîyah* (ms 225) of Abû al-Ḥasan Aḥmad al-Ṭabarî (fl. 4th/10th century) dated Shawwâl 611/1215 and a copy of the commentary by Naṣîr al-Dîn al-Ṭûsî (d. 672/1274) on Ibn Sînâ's *al-Ishârât wa-al-tanbîhât* (ms 478). This manuscript transcribed in the months of Shaᶜbân through Ramaḍân 761/1360 was copied from the exemplar containing numerous marginal glosses by the scribe's teacher and his teacher's teacher, thus bringing it very close, if not to the very time when the original was compiled. There is also an old codex, going back to the 6th/13th century or earlier, entitled *Sharḥ Fuṣûl Buqrâṭ* (ms 7785/66) by Ibn Abî Ṣâdiq, known as Buqrâṭ al-Thânî (d. after 460/1068).

2. Blacker-Wood Collection

The Blacker-Wood Arabic, Persian and Urdu manuscripts were gathered almost exclusively by Dr. Wood. Most of the 238 volumes were collected in 1926-27 by W. Ivanow, who provided the collection with a hand-written list.[2] The collection contains some 89 individual compositions in 75 volumes. There are 21 works on Philosophy and Logic, 15 on Grammar and Lexicography, and 12 on Theology, Sufism and Ethics. Other subjects covered are Qur'anic exegesis, Hadith, Fiqh, Rhetoric, Prose and Poetry, Arithmetic and Astronomy, as well as Natural History and Veterinary Science.

The oldest dated manuscript is a copy of *al-Kashshâf* (ms 170) of al-Zamakhsharî (d. 538/1144) transcribed in Dhû al-Ḥijjah 785/1384. Three other dated manuscripts come from the 9th/15th century. These are *al-Rawḍ al-fâ'iq fî al-mawâᶜiẓ wa-al-raqâ'iq* (ms 189) of Abû Madyan Shuᶜayb al-Ḥurayfîsh (d. 801/1398), dated Muḥarram 817/1414; *Sharḥ Îsâghûjî* (ms 202) by an unknown author, executed in Ṣafar 873/1468; and *al-Tahdhîb fî sharḥ al-Tahdhîb* (ms 208), being a commentary by ᶜUbayd Allâh al-Khabîṣî on *Tahdhîb al-manṭiq wa-al-kalâm* of Masᶜûd al-Taftâzânî (d. 791/1389), transcribed in Jumâdâ al-Ûlâ 877/1472. This collection, put together in Northeastern India, chiefly at Lucknow, is of great importance for the study of Arabic Indian palaeography.

3. Islamic Studies Collection

The Rare Book Section of the Islamic Studies Library houses a relatively small but quite interesting collection of 168 volumes of Arabic, Persian and Ottoman Turkish manuscripts. Most of this collection constitute Arabic codices. There are 112 volumes embodying some 127 individual texts. In subject coverage, it is similar to the Blacker-Wood collection. With almost all disciplines represented, these two collections in many ways complement each other. The disciplines best covered are Jurisprudence (34 texts), Philosophy and Theology (27 texts) and Grammar (19 texts). Approximately 85% of the Arabic collection is of Persian provenance. The remaining 15% constitute manuscripts which were executed mostly by Turkish hands. These manuscripts were acquired in the 1960s and 1970s from Iranian and European booksellers.

The oldest dated codex is a copy of a gloss (*ḥâshiyah*) by Aḥmad Khayâlî (d. 870/1465-6) on a commentary (*sharḥ*) on *al-ᶜAqâ'id al-nasafîyah* (ms 112), transcribed in 899/1493-4. This collection also includes a beautifully calligraphed and illuminated copy of a collection of prayers (ms 42), mostly by the famous Sufi master ᶜAbd al-Qâdir al-Jîlânî (d. 561/1167), executed in Shaᶜbân 1094/1683, and a large-size leaf (44 x 28.5 cm.) from a "Kûfî" Qur'an (ms 167), written on parchment supposedly by ᶜAlî ibn Aḥmad al-Warrâq for Fâṭimah, the Zirid Princess of Qayrawân, on 10th Ramaḍân 410, i.e., 1020 A.D. This leaf is a gift from the former President of Tunisia, Habib Bourguiba, who visited in the Institute and its library in 1959.[3]

4. McLennan Collection

The McLennan collection, apart from a number of Persian and Ottoman Turkish manuscripts, contains 33 volumes of Arabic manuscripts (i.e., 16 individual works). Among

the 33 volumes there are 18 copies of the Qur'an, three works on Grammar and Rhetoric, five prayer-books and two works on Sufism. Most of these manuscripts came from Dr. Casey Wood, the others came from various private sources and book dealers, notably from H.K. Monif of New York.

The most notable items in this collection are:

1. *Kitâb al-kâmil* (ms A2) of al-Mubarrad (d. 285/898), the oldest Arabic dated codex at McGill, transcribed in Rajab 563/1168. It bears two seal impressions of the Bohora Dâ^{c}î ^{c}Abd al-Qâdir with the date 1258/1842.

2. *Kalîlah wa-Dimnah* (ms A1) of Bidpai, dated Rabî^{c} al-Thânî 1055/1645 and containing 95 well-executed miniatures.

3. *Jawâhir al-anwâr wa-nasamât al-azhâr* (ms A4), a collection of prayers by Mûsâ al-Maghribî, calligraphed by an Ottoman calligrapher, Ibrâhîm al-Rudûsî in 1165/1751-2.

4. *Talkhîṣ al-Miftâḥ* (ms A3) of al-Khaṭîb al-Dimashqî (d. 739/1338) executed in 960/1552-3 by Ramaḍân ibn Muḥammad ibn Salmân al-Tabrîzî and containing four well-drawn miniatures.

ARABIC CALLIGRAPHY

As mentioned earlier, the Department of Rare Books at the McLennan Library houses a collection of over 200 pieces of calligraphy and single leaves from different manuscripts. This very beautiful and valuable collection includes 82 signed calligraphs and 28 diplomas (*ijâzât*) issued to calligraphers. Among the fragments there are 15 parchment leaves. Most calligraphs are of the type called *qiṭ^{c}ah* (i.e., single, usually mounted and decorated piece), although there are a number of discarded leaves (*mukhraj*) and albums (*muraqqa^{c}*). They were acquired by Dr. Gerhard R. Lomer (1882-1970), former University Librarian, from Atkinson of London in the early 1920s.

The signed calligraphs represent the following names:

^{c}Abd al-Ghaffâr Bayḍâ'î Khâvarî. – Nos. AC39 (panel in *thuluth*, dated 1258/1842-3), AC40 (panel in *nasta^{c}lîq*, dated 1258/1842-3).

^{c}Abd al-Ḥalîm Amîr Afandî zâdah (d. 1169/1755, Huart, 167-168; Rado, 157-158). – No. AC100 (*qiṭ^{c}ah*, n.d.).[4]

^{c}Abd al-Qâdir al-Ḥamdî Imâm zâdah (d. 1190/1776, Rado, 174 or 1210/1795-6; Huart, 187). – No. AC15 (single leaf, n.d).

^{c}Abd al-Raḥmân al-Ḥilmî (d. 1220/1805, Huart, 188; Rado, 187; Inal, 130-131). – No. AC12 (*qiṭ^{c}ah*, n.d.).

^{c}Abd Allâh Yadî Qulalî (Yedikuleli, d. 1144/1731-2, Huart, 159; Rado, 136- 138). – Nos. AC25 (*qiṭ^{c}ah*, n.d.), AC99 (*qiṭ^{c}ah* dated 1141/1728-9), AC107 (*mukhraj*, n.d.).

Aḥmad Jâwush zâdah, a pupil of Ḥusayn Afandî Khaffâf zâdah. – No. AC88 (*qiṭ^{c}ah*, n.d.).

Aḥmad Khalîl Bâshâ zâdah. – No. AC3 (*qiṭ^{c}ah*, n.d.).

Bakr al-Qûnawî. – No. AC95 (single leaf, dated 1161/1748).

Darwîsh Aḥmad (d. 1127/1715, Rado, 122; Huart, 138). – No. AC84 (*qiṭ^{c}ah*, n.d.).

Darwîsh ^{c}Alî II (Kuçuk, d. 1128/1715, Rado, 123; Huart, 151). – No. AC18 (*qiṭ^{c}ah*, n.d.).

Darwîsh ^{c}Alî III. – No. AC20 (unmounted four-leaf *muraqqa^{c}*, dated 1201/1786-7).

Darwîsh Ibrâhîm ibn Sha^{c}bân Khânah-i Safarlî. – No. AC85 (undecorated *qiṭ^{c}ah*, n.d.).

Fayḍ Allâh al-Lam^{c}î, Imâm Jâmi^{c} Sulaymân in Uskudâr. – No. AC91 (undecorated *qiṭ^{c}ah*, n.d.).

Ḥâfiẓ Ibrâhîm (possibly the same as Ibrâhîm al-Shawqî, q.v.). – No. AC17 (*qiṭ^{c}ah*, n.d.).

Ḥamd Allâh [al-Amâsî, known as Ibn al-Shaykh] (d. 926/1520, Huart, 108ff., 114ff., 137ff; Rado, 49-54). – No. AC155 (*mukhraj*, n.d., with a note *bû mukhraj Ḥamd Allâh al-ma^{c}rûf bi-Ibn al-Shaykh*).

Ḥasan al-Rushdî (d. 1205/1790, Jabartî, II, 116-117). – No. AC156 (an *ijâzah*, with a chain of authorities going back to ^{c}Alî ibn Abî Ṭâlib and Muḥammad, given by ^{c}Abd Allâh al-Anîs al-Mawlawî, dated 1157/1744-5. Followed by twelve other *ijâzât* granted by Muḥammad al-Nûrî, Ismâ^{c}îl al-Zuhdî, Ḥasan al-Diyâ'î, Aḥmad ibn Ismâ^{c}îl al-Afqam, ^{c}Ali al-Mâlikî, Ibrâhîm al-Riwaydî, Aḥmad Abû al-^{c}Izz al-Shanawânî, Muḥammad al-Azharî,

ᶜAbd Allâh, a pupil of al-Anîs, Aḥmad al-Mukhliṣ, Sulaymân, a pupil of al-Ḍiyâ'î and Muḥammad Najîb Ṣûyûljî zâdah).[5]

Ḥusayn al-Jazâ'irî (d. 1125/1713, Murâdî, II, 55-56; Zabîdî, 94). – Nos. AC51 (*qiṭᶜah*, dated 1131/1718-9!); AC52 (undecorated *qiṭᶜah*, dated [1]119/1707-8); AC53 *qiṭᶜah*, dated [1]114/1702-3).

Ḥusayn ibn Ramaḍân (d. 1157/1744, Rado, 145 or 1152/1739; Huart, 162-163). – No. AC37 (*qiṭᶜah*, n.d.).

Ibrâhîm al-Shawqî (also known as Ḥâfiẓ Ibrâhîm, d. 1245/1829, Huart, 192; Rado, 202). – No. AC163 (*Sûrah* 78-114, dated Shawwâl, 1235/1820).

Ibrâhîm ibn Ismâᶜîl al-Mu'nis. – Nos. AC72 (11 unmounted leaves, dated 1257/1841-2 and 1262/1845-6); AC70 (unmounted *muraqqaᶜ* of four leaves, dated 1261/1845).

Ismâᶜîl al-Zuhdî I (d. 1144/1731, Huart, 160; Rado, 135-136). – No. AC43 (*qiṭᶜah*, n.d.).

Ismâᶜîl al-Zuhdî II (d. 1221/1806, Rado, 186-188; Huart, 188). – Nos. AC47 (*qiṭᶜah*, dated 1205/1790-1); AC135 (two leaves, dated 1200/1785-6).
Ismâᶜîl al-Zuhdî (either I or II). – Nos. AC44-AC46, AC49-AC50, AC160, all undated).

Ismâᶜîl ibn ᶜAlî. – No. AC98 (*qiṭᶜah*, n.d.).

Khayr al-Dîn. – No. AC94 (unmounted *qiṭᶜah*, dated 1303/1885-6).

Maḥmûd Jalâl al-Dîn (d. 1245/1829, Rado, 199-200; Huart, 191-192). – Nos. AC26 (*qiṭᶜah*, n.d.); AC27 (one leaf, n.d.); AC29 (large panel in *thuluth*, n.d.); AC30 (large panel in *thuluth*, n.d.).

Muḥammad al-Ḥilmî. – No. AC13 (undecorated *qiṭᶜah*, n.d.).

Muḥammad al-Nûrî [al-Maqdisî] (d. 1162/1748-9, Kurdî, 251; Zabîdî, 94 or Rajab 1163/1750, according to a marginal note on AC35). – Nos. AC33 (*qiṭᶜah*, n.d.); AC34 (*qiṭᶜah*, dated 1128/1715); AC35 (*qiṭᶜah*, 1163/1749-50).

Muḥammad Amîn Afandî. – No. AC157 (*Sûrah* 77, followed by two *ijâzât*, given by Muḥammad Nûrî and Muḥammad al-Saᶜîd Mustaqîm zâdah, dated 1183/1769-70) (Figure 1).

Muḥammad ᶜArab zâdah (d. 1127/1715, Huart, 151). – No. AC90 (*qiṭᶜah*, n.d.).

Muḥammad Bayâzîd zâdah. – No. AC96 (unmounted *qiṭᶜah*, n.d.).

Muḥammad Fakhrî Afandî. – Nos. AC31 (*qiṭᶜah*, with two *ijâzât* given by Muḥammad al-Khulûṣî and al-Sayyid Ḥamdî, dated 1263/1846-7) (Figure 3); AC32 (*qiṭᶜah*, with two *ijâzât* granted by Muḥammad al-Waṣfî Dâᶜî Aḥmad, dated 1263/1846-7) (Figure 2).

Muḥammad Ghâlib Fawzî Afandî. – Nos. AC58 (*qiṭᶜah*, with three *ijâzât* given by Muṣṭafâ al-Ḥilmî damâd al-Sukûtî, ᶜAlî al-Ḥamdî and Ḥâfiẓ Ḥusayn al-Luṭfî, a pupil of Muṣṭafâ al-Ḥilmî, dated 1258/1842-3) (Figure 5); AC59 (*qiṭᶜah*, with three *ijâzât* given by Muḥammad Ṭâhir, known as Khalîfat Muṣṭafâ al-Ḥilmî damâd Ibrâhîm al-Sukûtî, Muḥammad Amîn al-Dhihnî, a pupil of Kabâjî zâdah and Yaᶜqûb Ḥakkî, a pupil of Muṣṭafâ al-Ḥilmî. All dated 1258/1842-3) (Figure 4).

Muḥammad ibn Maḥmûd. – No. AC42 (unmounted three leaves, dated 1113/1701-2).

Muḥammad ibn Muḥammad. – No. AC101 (*qiṭᶜah*, n.d.).

Muḥammad Mu'nis zâdah (d. 1318/1900, Azzâwî, 290). – Nos. AC64 (unmounted *qiṭᶜah*, dated 1286/1869-70); AC68 *qiṭᶜah*, dated 1286/1869-70).

Muḥammad Qâsim Tabrîzî. – Nos. AC60 (panel in *nastaᶜlîq*, dated 1282/1865-6); AC61 (panel in *nastaᶜlîq*, n.d.); AC62 (panel in *nastaᶜlîq*, n.d.); AC158 (seven leaves from a *muraqqaᶜ*, dated 1284/1867-8).

Muḥammad Râghib Afandî. – No. AC97 (*qiṭᶜah*, with an *ijâzah* given by Muḥammad ᶜAṭâ', a pupil of Waṣfî Afandî, dated 1201/1786-7) (Figure 7).

Muḥammad Râsim (d. 1169/1755, Rado, 155-156; Huart, 168). – No. AC87 (*qiṭᶜah*, n.d.).

Muḥammad Shakar zâdah (d. 1166/1752, Rado, 151-152). – Nos. AC36 (*qiṭᶜah*, n.d.); AC54 (*qiṭᶜah*, n.d.); AC55 (*qiṭᶜah*, n.d.).

Muḥammad Shahrî (d. 1153/1740, Rado, 141; Zabîdî, 94). – Nos. AC14 (*qiṭᶜah*, n.d.); AC21 (*qiṭᶜah*, dated 1115/1703-4).

Figure 1. Two diplomas awarded to Muḥammad Amîn Afandî (AC157).

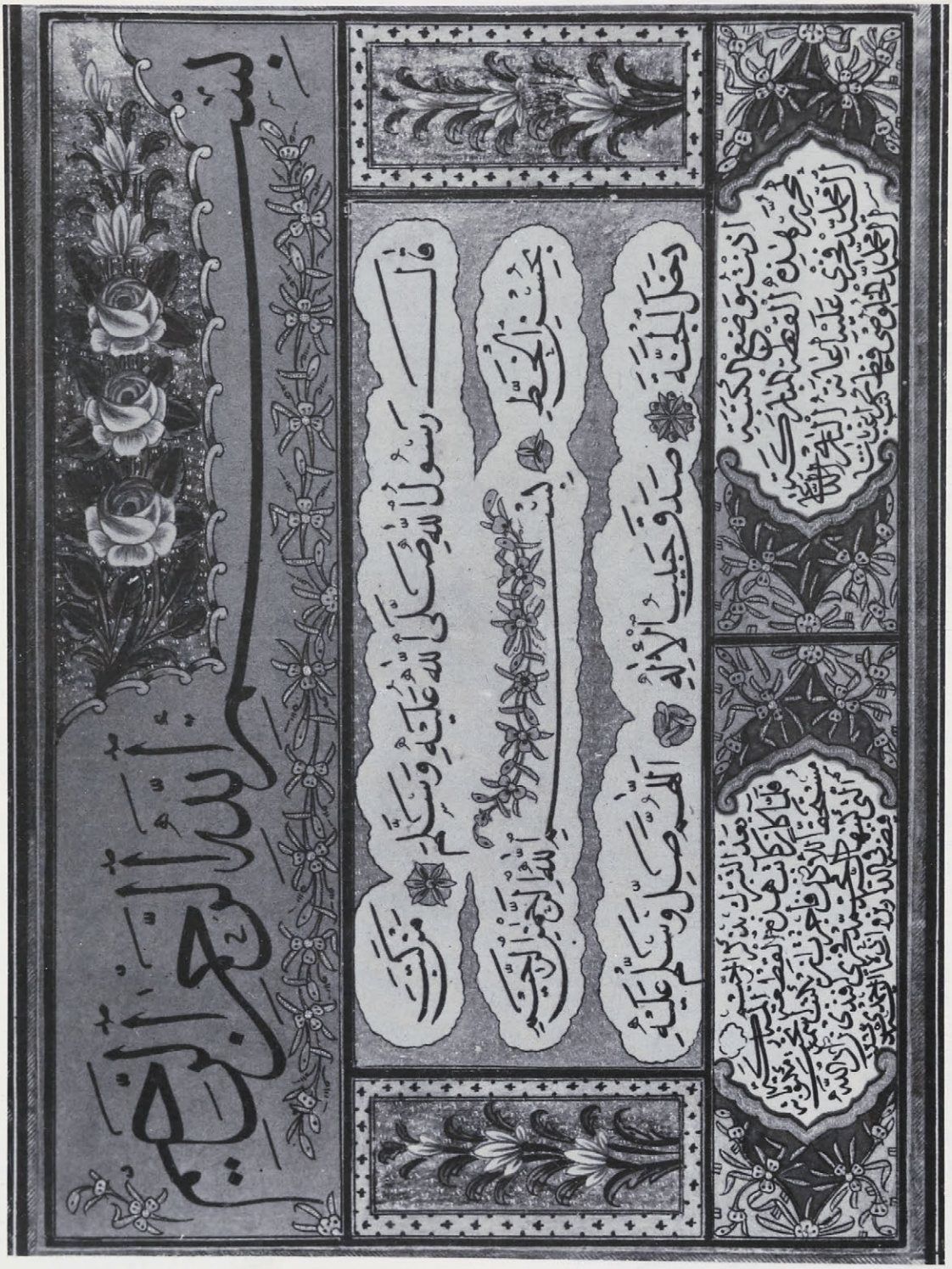


Figure 2. Two diplomas granted to Muḥammad Fakhrî Afandî (AC32).

Figure 3. Two diplomas awarded to Muḥammad Fakhrî Afandî (AC31).

Figure 4. Three diplomas granted to Muḥammad Ghâlib Fawzî Afandî (AC59).

Figure 5. Three diplomas awarded to Muḥammad Ghâlib Fawzî Afandî (AC58).

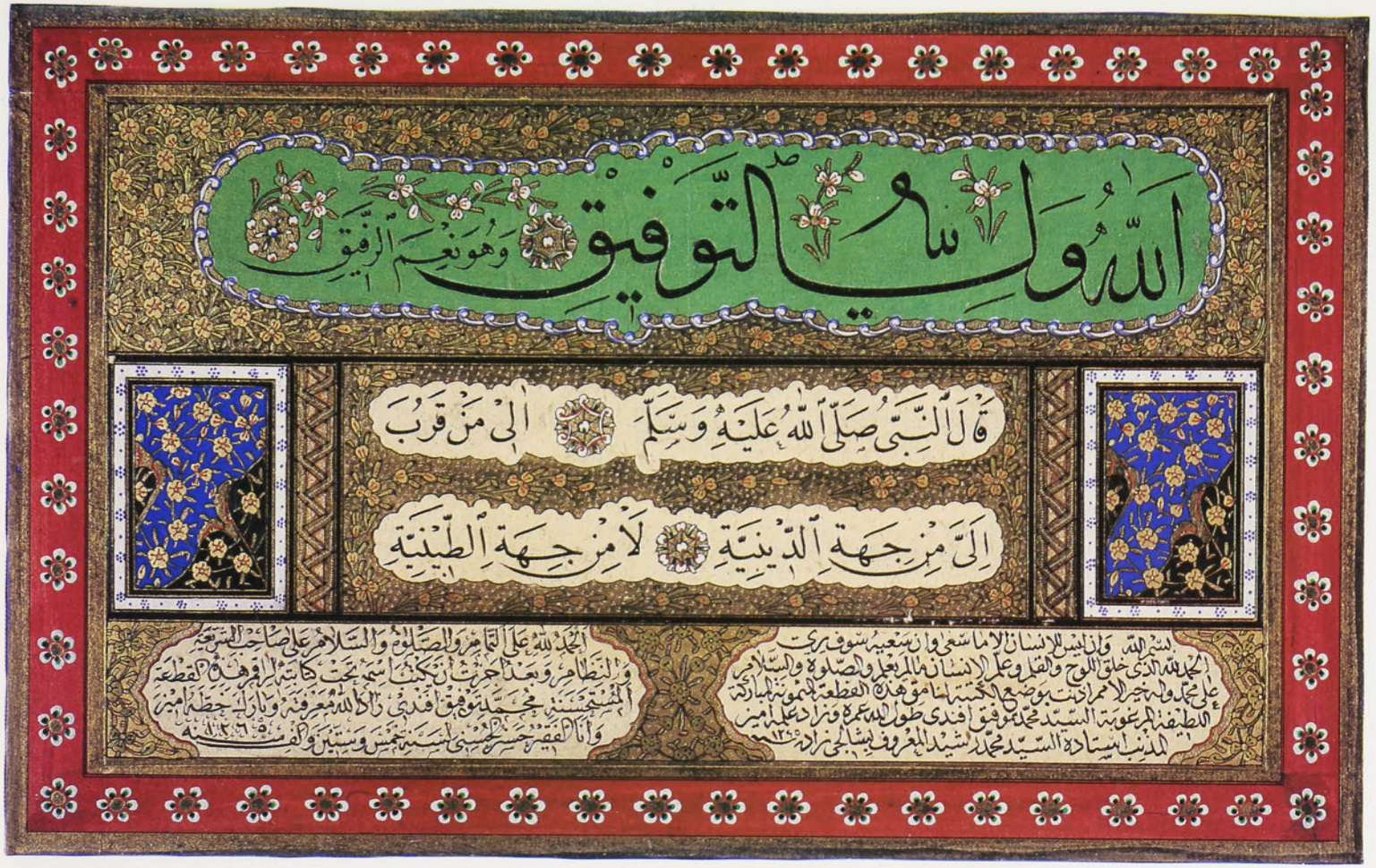


Figure 6. Calligraphic panel with two diplomas granted to Muḥammad Tawfîq Afandî (AC57).

Figure 7. Calligraphic panel with a diploma given to Muḥammad Râghib Afandî (AC97).

Figure 8. Folio 277a from the Osler codex depicting two kinds of *kabîkaj* (ranunculus asiaticus).

Figure 9. Folio 277b from the Osler codex depicting two additional kinds of *kabîkaj* (ranunculus asiaticus).

Muḥammad Tawfîq Afandî. – Nos. AC57 (*qiṭ'ah*, accompanied by two *ijâzât* granted by Muḥammad Rashîd Shâlijî zâdah and Ḥusayn al-Ḥusnî, dated 1265/1848-9) (Figure 6).

Muṣṭafâ 'Alî zâdah (a pupil of Shughlî Dadah). – No. AC89 (*qiṭ'ah*, dated 1137/1724-5).

Muṣṭafâ 'Izzat (d. 1293/1876, Rado, 216-218). – Nos. AC16 (*qiṭ'ah*, n.d.); AC41 (four unmounted leaves, dated 1282/1865-6 and [12]83/1866-7).

Muṣṭafâ Mu'adhdhin zâdah (a pupil of 'Abd Allâh al-Hâshimî). – No. AC92 (*qiṭ'ah*, n.d.).

Muṣṭafâ Nûrî. – No. AC104 (unmounted leaf, n.d.).

Muṣṭafâ Râqim (d. 1241/1826, Rado, 196-199; Huart, 191). – No. AC63 (*qiṭ'ah*, n.d.).

Sulaymân Ḥikmatî (Inal, [372-373]). – No. AC93 (*qiṭ'ah*, n.d.).

Taḥsîn al-Ḥusnî. – No. AC165 (large panel in *thuluth*, n.d.).

Tawfîqî (a pupil of 'Uthmân Afandî). – No. AC162 (four-leaf *muraqqa'*, dated 1225/1810).
'Umar al-Waṣfî (d. 1240/1824, Rado, 195-196; Huart, 190). – No. AC159 (nine-leaf *muraqqa'*, dated 1220/1805-6).

'Uthmân damâd Ibrâhîm al-'Afîf (d. 1120/1805, Rado, 185). – No. AC102 (single leaf, n.d.).

'Uthmân Ḥâfiẓ al-Qur'ân (also known as Ḥâfiẓ 'Uthmân, d. 1110/1698, Rado, 109-114; Huart, 143-144). – Nos. AC73 (*qiṭ'ah*, n.d.); AC74 (panel in *thuluth*, n.d.).

'Uthmân ibn Darwîsh Muḥammad Aghâ al-Arḍ Rûmî [of Erzurum]. – No. AC164 (*Sûrah* 18, n.d.).

Yaḥyâ Afandî (possibly al-Sayyid Yaḥyâ, d. 1198/1783, Rado, 175). – No. AC9 (*qiṭ'ah*, n.d.).

THE "HERBAL" OF AL-GHÂFIQÎ

The illustrated Arabic codex, the "Book of simple drugs" or *Kitâb fî al-adwiyah al-mufradah*, was compiled by the Andalusian pharmacologist and botanist Abû Ja'far Aḥmad ibn Muḥammad al-Ghâfiqî (d. 560/1165).[6] Not much is known about the author's life except that his family came from the region of Cordova where he is likely to have practiced medicine and pharmacology. His father Muḥammad ibn Qassûm was a scholar and oculist. According to Ibn Abî Uṣaybi'ah, a historian of Arabic medicine, al-Ghâfiqî was the greatest scholar of his time in this domain. His book of simple remedies is a unique encyclopedia.[7]

The manuscript, originally believed to be part of an Arabic translation of *De Materia medica* of Dioscorides, was purchased in Iran for Sir William Osler, then Regius Professor of Medicine at Oxford University, in 1912. It was acquired together with a copy of the work of Dioscorides and the price paid for the two manuscripts was 25 pound sterling, only five pounds more than the offer made by the British Museum. Osler intended to give this manuscript to the Bodleian Library, but when Dr. W.W. Francis, a cataloguer of the Osler collection and later the first Osler Librarian, discovered that it was not the work of Dioscorides, he successfully claimed it for the Osler Library. Osler had his whole library catalogued before he bequeathed it to McGill University.[8]

The present volume constitutes part one (*al-juz' al-awwal*) of the original work, in which all entries (mainly names of plants, but also some drugs and animals) had been arranged in alphabetical order. As was the practice in those days, the author used the alpha-numeric notation (*abjad*). It is important to bear this in mind as the sequence of letters in this notation is not only different from the present day arrangement of the Arabic alphabet but also varies in places from its eastern (*mashriqî*) version. Our manuscript, being the first volume of al-Ghâfiqî's work, covers the letters *alif* through *kâf*, but having in between *bâ'*, *jîm*, *dâl*, *ḥâ'*, *wâw*, *zây*, *ḥâ'*, *ṭâ'*, and *yâ'*.[9]

The "Herbal" of al-Ghâfiqî is an example of a well-planned piece of work. Since it is based on the works of Dioscorides (Dîsqûrîdis) and Galen (Jâlînûs), he refers to these two main sources by using abbreviations: *dâl* for Dioscorides and *jîm* (unpointed) for Galen. These abbreviations (*rumûz*) are followed by the number of the chapter (*maqâlah*) from which a given piece of information was obtained. Thus,

for example, *dâl bâ'* means Dioscorides chapter 2 and *jîm wâw*, Galen chapter 6. Other, later sources are also mentioned, usually by referring to the name of the author. Each letter sequence, which forms a chapter (*bâb*) is followed by a summary giving meanings (*sharḥ*), etymology and synonyms of the plants.[10]

As far as we know, only three or four other copies of this work are extant.[11] This manuscript, preserved in the Osler Library, is a rare example of Arabic art. It numbers 284 folios (including two fly leaves) and its measurements are approximately 25 x 18 cm. (20.5 x 13.5 cm., for the written area) and 23 lines per page. It is written on thick Oriental paper of wove texture, in a very elegant hand, which can be characterised as Old *Naskh* (*al-Naskh al-Qadîm*), similar to the *al-Naskh al-Faḍḍâḥ* or *al-Waḍḍâḥ*, known as an "all revealing," clear *Naskh*.[12] The text is partly vocalized and the unpointed letters (*al-ḥurûf al-muhmalah*) are distinguished either by a small caret (v) or a miniature version of the same letter (e.g., *ḥâ'* and *ᶜayn*). Some of the main features of this hand are: a flat and thick stroke of the final *lâm*, the "tail" on the *alif* of prolongation, the serif (*tarwîs*) on such letters as *alif, lâm, dâl, nûn* (particularly in chapter headings), and the occasional lack of a bar over the letter *kâf*. The presence of *tarwîs* is unusual for in most cases a *Naskh* hand is devoid of it. The codex contains 475 entries and 367 coloured drawings, mainly of plants, but also of animals and some drugs. Among the plants we find four unique drawings of *Ranunculus Asiaticus* ("little Asiatic frog") called *Kabîkaj* (fols. 277a and 277b, Figures 8, 9.) This plant, and later just its name, was used for the preservation of manuscripts.[13] The volume is richly rubricated and its chapter headings and lemmata executed in black ink in bold letters (*taghlîẓ*). The end of a paragraph or section is indicated either by *hâ'* and *yâ'* (for *intahâ*, i.e.,literally "it ended") or an open circle with a dot in the middle or three shaded carets in the form of a triangle or all three marks together (as e.g. on fol. 53b).

The name of the copyist is not given and the date reads most probably Shaᶜbân 654, i.e., August 1256.[14] According to Prof. M. Meyerhof, who was the first to study this manuscript in some detail, the handwriting and drawings can almost without doubt be attributed to an artist from the Baghdad school which flourished in the first half of the thirteenth century until the destruction of Baghdad by the Mongols in 1258 A.D. "A Baghdad," says Meyerhof, "on en a certainement écrit une ou plusieurs copies calligraphiées pour des personnes de marque et on les a ensuite fait illustrer par des artistes ᶜirâqiens. Le manuscrit de Montréal est très probablement un des premiers ou même le premier en date – et à cause de la catastrophe de Baghdad aussi un des derniers – exemplaires du Ġâfiqî illustré."[15] This, and the fact that the other surviving manuscripts appear to be inferior, adds to the importance of the Osler manuscript.

Looking at the text itself one soon notices that the manuscript was collated. The marginal corrections constitute mainly omissions/ insertions. They are indicated by placing a stroke, between the words in the body of the text, which curves upwards in the direction of the margin where the omission is placed. If the omission consists of one or two words it is written on the level of the line from which it is missing. If, however, it is longer, it descends or ascends from the line of omission. The end of an omission is indicated by the word *ṣaḥḥa*, meaning it is correct, followed, sometimes, by the next word in the text, which is then crossed out. Only a few variants are to be found in the margins. They are indicated by writing the number two above the relevant word in the text and the same number plus the letter *khâ'* (for *nuskhah ukhrâ*, another copy) above the word in the margin.[16]

The red leather covers with on-laid medallions and pendants are of a more recent date. In view of the fact that there is no envelope flap (*lisân*) and the fly leaves are made of European wove paper, the present binding is likely to have been supplied at the beginning of the nineteenth century. It is at this stage also that the first eight leaves were added. A number of illustrations are damaged, mainly due to the off-setting of ink. There is also some loss of text caused by trying to separate the leaves which got stuck together. Furthermore, as a result of mindless rebinding, many folios are out of order. According to Professor Meyerhof, who examined a photostat of this manuscript, the sequence should be as follows: fols. 2-9, 10-11, 19, 12-18, 20-41, 42-43, 44-110, 120, 112-119,

111, 121-122, one or two folios missing, 123-141, 143, 142, one leaf missing, 144-147, 149, 148, 151-253, 274-277, 254-267, 271, 273, 279, 278, 268-270, 282, 280-281, 283.[17] He does not mention, however, fols. 150 and 272, which should follow nos. 148 and 271 respectively. One of the reasons for this confusion may have been the fact that the original catchwords were placed only at the end of each quire of 10 folios.

The original manuscript must have existed in an acephalous form for some time. This can be inferred from the title on fol. 10a in the head margin; it reads: *Ṭibb-i Qâfiqî*(!) (*The medicine of al-Ghâfiqî*). The name Ghâfiqî is written with and unpointed *qâf* (pronounced in Persian as *ghâ'*). This, and the lack of the definite article before the name is a good pointer to the manuscript's Persian connection. If we accept Professor Meyerhof's theory that it originated in Baghdad, then it must have travelled to Iran, where it stayed for several centuries, before it was shipped to Oxford and later to Montreal. The same folio bears two seals: one oval with the legend *wa-salâm ᶜalâ Ibrâhîm* (and may peace be upon Ibrahim), dated 1051 A.H., i.e., 1641 or 1642 A.D. and belonging to someone called Ibrâhîm or ᶜAlî Ibrâhîm; the other, placed in the left hand margin and repeated on fol. 283a reads Muḥammad Jamâl al-Dîn al-Ḥusaynî with a date 1080(?) A.H., i.e., 1669 or 1670 A.D. These two names being typical of the Shiᶜite milieu place us firmly on the Persian ground. Of two other seals found in the manuscript one (fols. 119a, 127b and 128a) has an inscription *tawakkaltu ᶜalâ Allâh* (I have put my trust in God) and the other (fol. 283a) has been entirely erased. In addition, fol. 283b bears a note recording several historical events around 815(?)/1412 involving three important cities: Samarqand, Herat and Baghdad. Beneath this note there is a chess score (*ḥisâb al-shaṭranj*) and in the lower end of the folio there is a barely visible date 868(?)/1463 or 1464, which could refer to the writing of the above-mentioned statements.

Even though used extensively by Ibn al-Bayṭâr for the compilation of his *Jâmiᶜ* and abridged by Abû al-Faraj, the work of al-Ghâfiqî has never been edited, and only a few illustrations from the Osler codex have been reproduced. Yet this particular work and its copy preserved at McGill surely deserves a much greater attention on the part of historians of medicine and art.

CONCLUSION

This brief survey of Arabic manuscripts in the collections of McGill University shows a great diversity of texts, many of which have never been explored by researchers. The Arabic calligraphy and the book of al-Ghâfiqî have been selected as outstanding examples of beauty and rarity to be found in these collections. There are other treasures and a host of, what some might term as, ordinary codices: copies of well-known works which do not add much to our knowledge of different Islamic disciplines. They illustrate, however, a tradition of copying and correction, learning and teaching. Their beauty lies not in the variety of colours but often in the neatness and clarity of the hand.

* * * * *

Notes

I am grateful to Dr. Richard Virr, the Manuscript Curator in the Department of Rare Books, McLennan Library, Dr. Faith Wallis, Head, Osler Library and Miss Eleanor MacLean, Head, Blacker-Wood Library, for their assistance.

1. A description of the four collections of Islamic manuscripts at McGill University can be found in Thomas J. Martin's *North American Collections of Islamic Manuscripts* (Boston: G. K. Hall, 1977): 86-90. The information, however, is inaccurate. A complete and more accurate picture of these collections will only emerge once they have been properly catalogued. *A Union Catalogue of Arabic Manuscripts* is now being planned for future publication by Adam Gacek. Some of the manuscripts in the Osler collection were originally described in *Bibliotheca Osleriana, a Catalogue of Books Illustrating the History of Medicine and Science Collected, Arranged, and Annotated by Sir William Osler, Bart. and Bequeathed to McGill University* (Montreal: McGill Queen's University Press, 1969), i.e., mss 449, 450, 462, 463, 464, 465, 478, 7508, and 7571, as well as 7785 which is a list of Persian, Arabic and Hindustani medical manuscripts presented in 1927 by Dr. Casey A. Wood and taken from a tabulated list drawn up by W. Ivanow.

2. The original descriptions of these manuscripts, complete with an introduction and indexes, are preserved in the Blacker-Wood Library under the no. ZE.W852. There is also a typescript of 36 pages entitled *Annotated Catalogue of the Casey A. Wood Collection of Persian, Arabic and Hindustani Manuscripts* by Wladimir Ivanow (Bombay: 1927). This document contains a preface and a list of rare works in the collection with references. A similar list prepared by W. J. Watson, the first Librarian of the Islamic Studies Library, can be found in *A Dictionary Catalogue of the Blacker-Wood Library of Zoology and Ornithology* (Boston: G. K. Hall, 1966) 9: 681-684.

3. *A Handlist of Arabic Manuscripts in the Islamic Studies Library, McGill University* prepared by the author of this paper is available for consultation in the library.

4. For biographical details of calligraphers see the following references:

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5. For an analysis of this work, see my "The diploma of the Egyptian calligrapher Ḥasan al-Rushdî," *Manuscripts of the Middle East* 4 (1989- forthcoming).

6. The title of this work has been taken from the preface. The colophon, however, refers to it as *Kitâb al-Ghâfiqî* (The book of al-Ghâfiqî). For biobibliographical information see C. Brockelmann, *Geschichte der arabischen Litteratur* (Leiden: E. J. Brill, 1937-49) 1:643 and SI:891; M. Ullmann, *Die Medizin im Islam* (Leiden: E. J. Brill, 1970):276-277; "Al-Ghâfikî," *Encyclopaedia of Islam*, new ed. 1960- , suppl., fasc. 5-6.

7. See his *ᶜUyûn al-anbâ' fî ṭabaqât al-aṭibbâ'*, ed. Nizâr Riḍâ (Beirut: Dâr Maktabat al-Ḥayâh, 1965):500-501.

8. This information has been extracted from the letters written by W. Osler, A. Cowley (of the Bodleian Library), J. H. Bill (an official in the British Residency in Bushire, Iran, who acted as a link between A. Cowley and the owner of the manuscript, Dr. M. Saʿeed), W. W. Francis and appended to this volume. The description of the manuscript of Dioscorides can be found in B. W. Robinson and Basil Gray, *The Persian Art of the Book, catalogue of an exhibition held at the Bodleian Library to mark the Sixth International Congress of Iranian Art and Archaeology*, (Oxford: Bodleian Library, 1972): 9-10, pl. 1.

9. "Abdjad," *Encyclopaedia of Islam*, new ed., 1960-.

10. For a more detailed analysis of the contents of the work of al-Ghâfiqî see M. Meyerhof, "Études de pharmacologie arabe tirées de manuscrits inédits. III. Deux manuscrits illustrés du 'Livre des simples' d'Aḥmad al-Ġâfiqî, "*Bulletin de l'Institut d'Égypte* 23 (1940-41): 13-29, 3 plates.

11. Ullmann, *Medizin*: 276.

12. See Muḥammad ibn Ḥasan al-Ṭîbî, *Jâmiʿ maḥâsin kitâbat al-kuttâb*, ed. Ṣalâh al-Dîn al-Munajjid (Beirut: Dâr al-Kitâb al-Jadîd, 1962): 63-67.

13. See my "The use of 'kabîkaj' in Arabic manuscripts," *Manuscripts of the Middle East* 1 (1986): 49-53, as well as James W. Pollock, "Kabî:kaj to book pouches: library preservation magic and technique in Syria of the 1880's and the 1980's West," *MELA Notes* 44 (Spring 1988): 8-10.

14. The reading of the date is by no means certain. A note on fol. 1a states: "Sir Denison Ross interpreted the difficult date of this ms as 654 A.H. = 1256 A.D. I took it to him to the Oriental School in London. W.W.F." Another way of reading this date would be 504 A.H. = 1110 A.H. Someone certainly read it this way for it is written in European figures at the bottom of the same folio. The year 504, however, could only be interpreted as the date of composition and not of transcription, unless the author did not die in 560 A.H. but earlier.

15. Meyerhof, "Études,": 20.

16. For the various practices connected with the critical apparatus in Arabic manuscripts see my "Technical practices and recommendations recorded by classical and post-classical Arabic scholars concerning the copying and correction of manuscripts," *Les Manuscrits du Moyen Orient*, éd. F. Déroche (Istanbul/Paris: 1988 – forthcoming).

17. Professor Meyerhof's letter of 7.07.1938 and a note by W. W. Francis on fol. 284b.

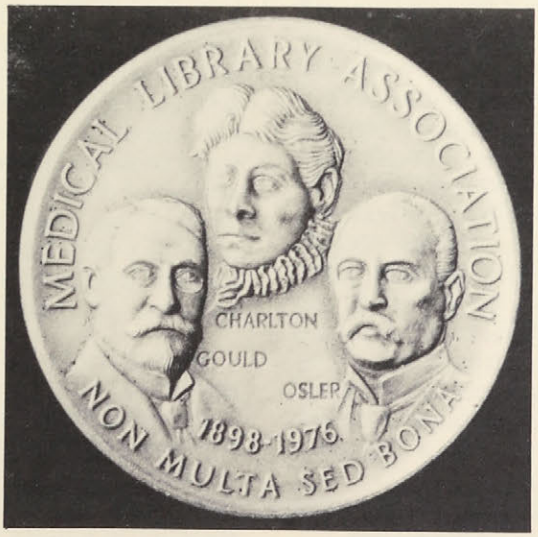
Margaret Ridley Charlton, Medical Librarian and Historian: An Evaluation of her Career

by Frances Groen

Margaret Charlton, Assistant Librarian of the McGill Medical Library from 1895 to 1914, played a leading role in the formation of the Medical Library Association, of which she became the first Secretary. Her career at McGill's Medical Library appears to have been a colourful one and brought her into contact with many of the faculty. After leaving McGill in 1914, she was appointed as Librarian at the Academy of Medicine in Toronto where she devoted herself to her lifelong interest in the history of medicine. Her contribution to historical medical scholarship in Quebec is evaluated.

Margaret Charlton, bibliothécaire adjointe de la bibliothèque de médecine de McGill de 1895 à 1914, a joué un rôle capital dans la création de l'Association des bibliothèques de médecine dont elle fut la première secrétaire. Sa carrière à la bibliothèque de médecine de McGill semble avoir été haute en couleurs et lui a permis de faire la connaissance de nombreux professeurs. Elle a quitté McGill en 1914 pour un poste de bibliothécaire à l'Académie de médecine de Toronto où elle s'est entièrement consacrée à sa passion de toujours, l'histoire de la médecine. Une évaluation de sa contribution aux études de l'histoire de la médecine au Québec est présentée.

The Anniversary Medal of the Medical Library Association, struck in 1976 to commemorate the Association's 75th Annual Congress, depicts the three people credited with the founding of the Association in 1898. On the right is the familiar, heavily moustached face of Sir William Osler, on the left, the bearded Dr. George Milbray Gould. At centre, flanked by these eminent physicians, is a three-quarter profile of Miss Margaret Charlton, one time Assistant Medical Librarian of McGill University. Margaret Charlton (1858-1931) was forty years of age at the time that the Association was founded. Her face shows a firm, even severe expression combined with the refinement characteristic of a lady of the era. Her hair is drawn back high off her forehead and her regular features are framed by a high Victorian collar. In sum, she appears to be very much a lady of her time.



Commemorative Medal of the Medical Library Association

In 1895, in her thirty-seventh year, Margaret Charlton was engaged by the Faculty of Medicine of McGill University to work in the Faculty Library. When she came to the Library, it was already 72 years old and the largest in North America connected with a medical school. At the time, it contained 14,000 volumes, and during her 19 year tenure, 10,000 volumes were added. Margaret Charlton

entered the profession of librarianship following a career in literary journalism in which she wrote numerous historical sketches for the *Dominion Illustrated Monthly* and several books.[1] In entering librarianship she was ahead of her time, for at the end of the last century, in Canada at least, librarianship as a profession for women had not developed to any extent. By the standards of genteel ladies of her day, she was well educated for the position, having attended the Montreal High School and a summer course in librarianship at Amherst College in Amherst, Massachusetts, where Melvil Dewey taught. In his presidential address to the Medical Library Association in 1936,[2] Dr. W. W. Francis, the first Osler Librarian, describes her as "thoroughly imbued, perhaps...be-Dewied with his classification."

Miss Charlton remained as Assistant Medical Librarian at McGill until 1914, when she resigned to take charge of the Academy of Medicine Library, Toronto. We do not know the precise conditions of Margaret Charlton's initial appointment at McGill in 1895. However, by 1896 she was already interested in library work beyond her immediate place of employment, for the Minutes of the Library Committee of the Faculty of Medicine record a re-imbursement of $55 to Miss Charlton for her expenses in attending a meeting of the American Library Association in Chicago.[3]

Medical education was developing rapidly throughout North America and the need for well managed medical libraries in support of medical education was increasingly evident to medical educators. In 1898, Dr. George M. Gould invited a group of physicians and librarians to a meeting in his editorial office of the *Philadelphia Medical Journal* to launch a new Association for medical librarians. Margaret Charlton was one of those invited to attend. Martha Noyes, another early pioneer in medical libraries, gives credit to Margaret Charlton for founding the Association and attributes Charlton's commitment, in part, to her frustration when she attempted to find solutions to medical library problems within the American Library Association. Miss Noyes writes of Margaret Charlton as follows:

> Miss Charlton was the one person who indirectly brought the Association into being from speaking with Dr. Osler. She had belonged to the American Library Association. Their problems were not our problems, and she felt lost and that the time was wasted, yet she had striven for contact with those doing just the sort of work she was doing. And so she suggested to Dr. Osler that it would be a fine thing if the Medical Librarians could do the same sort of thing the American Library Association was doing.[4]

Margaret Charlton welcomed the challenge of helping in the founding of the Medical Library Association and embraced these heavy responsibilities with enthusiasm.[5] Writing to William Browning, MD, Librarian of the Medical Society, County of Kings, New York, on March 31, 1895, she invited him to attend the meeting in Dr. Gould's editorial offices on May 9, 1898,

> It is proposed to form a Medical Librarian's Association whereby the vast medical literature all over the world may be utilized. Dr. Gould has commissioned me to do all the correspondence relating to the formation of the Medical Librarians' Association as he himself has not the time at present to devote to it.

She continued to devote herself to this association and wrote again in May, 1898 to Dr. Browning, "The more I think of our Association, the more I hope it will prove a success and that next year when we meet, it will be with the feeling that we have done our best to make it the success it deserves to be." Her dedication was sustained, but with a realism, portrayed in correspondence with Dr. Browning on June 27, 1898, "Our Library Movement seems to be growing only I think that ... they are going a little too fast. To have a library in every village does not seem necessary."

In these early letters, Margaret Charlton also displayed her concern with some of the continuing themes in medical library practice. She was concerned that adequate collections of medical journals be established, and to this purpose wrote to publishers and medical societies to join the new Association and to ask them to furnish their journals or transactions free

Margaret Ridley Charlton, ca. 1895. Osler Library.

to libraries joining the Association. On the importance of separate medical libraries she wrote to Dr. Browning on July 25, 1898, "I am very much opposed to his [Dr. George M. Gould] idea of medical libraries in public libraries and strongly maintain that medical libraries should be housed by themselves." She struck a subservient note on this issue, however, when she commented, "Of course if you ... agree with Dr. Gould, I shall say no more about it." She was delighted to hear subsequently that Dr. Browning supported her stand, "I have read your paper which appeared in the *Philadelphia Weekly* and I am delighted with it. I agree with you in reference to the libraries being apart from general libraries wherever practicable."

One year later, the fledgling Association had gotten off the ground, and Margaret Charlton noted that she had written to all members of the Association to ask them when they would like to hold a meeting. The question of fees for membership arose, and she wrote to Dr. Browning in his capacity as Treasurer of the Association of Medical Librarians. "I am sorry that we have to ask the medical libraries for $25 as most of them are too poor to subscribe." Dr. Browning was a frequent recipient of letters from Miss Charlton on all matters relating to the new Association. With the first annual meeting scheduled for the autumn of 1899, Margaret Charlton was beginning to feel some pressure, revealed in her comment in a letter of October 16, 1899 to Dr. Browning, "How stupid of me to send that check ... without endorsing it and kind of you not to say 'Just like a woman.' "

Having been instrumental in the founding of an association for medical librarians, Margaret Charlton became its first secretary in 1898 and continued in that role until 1903, returning again as secretary from 1909 until 1911. As an historical aside, it is interesting to note that the Medical Library Association was not presided over by a woman until 1933. From its beginning until that year, the Association's presidents had been prominent physicians interested in medical libraries. In 1933, librarian Marcia C. Noyes was elected president thus breaking this tradition of physician presidents.

The tradition of physicians as Presidents of the Medical Library Association was also characteristic of appointments of physicians as directors of medical school libraries. Within the Faculty of Medicine at McGill University, the history of distinguished physicians as chief librarians began with Dr. Andrew Fernando Holmes, one of the four founders of the Faculty of Medicine. Holmes was in charge of the Library of the Montreal Medical Institute which was founded in 1823. This became the McGill Medical Faculty in 1829, and Holmes continued in charge of its Medical Library until his death in 1860. Sir William Osler also acted informally during his years at McGill as volunteer librarian for the medical school although he was not officially appointed to this role. It is not difficult to imagine Osler in this role, volunteer or otherwise. For nineteen years, Margaret Charlton was Assistant Medical Librarian to the Honorary Medical Librarian, Dr. Frederick Gault Finley, who held this post from 1895 until 1914. As practicing Assistant Medical Librarian, Margaret Charlton must have enjoyed the support and encouragement of Dr. Finley whose term as Honorary Librarian overlapped so closely with her own period at McGill.

All was not harmony within the Library, however; Dr. William Francis, Osler Librarian, noted in his 1936 Presidential Address to the Medical Library Association that:

> ... a sensitive, book-devouring investigator was disliked by and positively afraid of our mild librarian! For though there was always a quiet dignity about Miss Charlton, it did not conceal her fervid likes and dislikes.[6]

There was, however, more at stake than the personal preferences of Miss Charlton. In 1908, the Minutes of the Library Committee of the Faculty of Medicine of McGill University stated that

> The assistant librarian's attention should be drawn to the laxity with which journals are taken out by members of the staff and not recorded .... that, moreover, it is essential that civility be shown to all who decide to make use of the Library.[7,8]

By 1912, the dissatisfaction with Margaret Charlton's managment appears to have reached a crescendo. The Library Committee Minutes again express the concerns as follows:

> ... the cataloguing was very far behind and ... was not keeping pace with the

> accessions. As to the bookkeeping, there were serious complaints that this was badly muddled. There was more than a suspicion that accounts had been not infrequently twice paid.[9]

By this time the staff of the Library, in addition to Miss Charlton, consisted of two full time assistants and a third half-time. The Committee recommended that the two full time assistants be dismissed and replaced by a second Assistant Librarian, equal in status to Miss Charlton who would be in charge of correspondence, the lending library and the reading room. By the end of 1914, Margaret Charlton had left the McGill Medical Library. Years later, in 1936, Dr. Finley who had been honorary librarian, wrote in a letter to Dr. Francis:

> I held on to the post of Hon. Librarian long after I should have resigned as I knew that few others would have tolerated her (Miss Charlton's) vagaries, which in my opinion were more than balanced by her energies and ability.[10]

The career of Margaret Charlton in the Faculty of Medicine of McGill University is particularly touching, and her story is one that deserves much study. She resembles other outspoken Canadian women of her period, the novelist Sarah Jeanette Duncan, the poet Pauline Johnson, and others whose colourful and dominant personalities were masked by a combination of Victorian standards and behavioural conventions. Although recognized for their work, they were frequently viewed askance by their contemporaries.

Certain aspects of Margaret Charlton's career demonstrate her successful efforts to integrate the needs of her library's users at a local level with developments in the medical library world. She reported in 1902 to the Library Committee that:

> Those engaged in research in the Library have been greatly inconvenienced by the discontinuance of the *Index Medicus*. The Index published in Paris has been found a very unsatisfactory substitute, and it seems likely to be discontinued. The Association of Medical Librarians is trying to see what can be done to start it again. I submit for your inspection the first number of the Bulletin of the Association of Medical Librarians.[11]

This quotation illustrates Margaret Charlton at her professional best. Her concern with adequate tools for retrieving the medical literature is clearly expressed in her dissatisfaction with the short-lived French publication, *Bibliographie Médicale*, and her efforts to improve this situation are evident. We also see her as someone not only in touch with her times but willing to do something to improve them. Her presentation to the Library Committee of the first volume of the *Bulletin*, which continues today as the world's leading publication in the field of medical librarianship, must have given her considerable pride and a feeling of accomplishment. Margaret Charlton was indeed fully "au courant" and well integrated into her profession. She was also well motivated on behalf of users.

Although Margaret Charlton's career demonstrates several essential attributes of the successful librarian, we have seen that her professional life was not entirely successful. She had entered the field of medical librarianship when it was in its infancy. She appears to have lacked the management, technical and human skills necessary in the medical librarian of today. But in her defense, it is necessary to re-emphasize that her profession was still being defined: the first course in medical bibliography taught by librarians was not offered until 1937, nor was there a professional librarian at the U.S. National Library of Medicine until 1942.

In her career, Margaret Charlton was fortunate to have been associated with two institutions that enjoyed significant library resources and played a significant role in the development of the medical profession in Canada. In the case of both the Faculty of Medicine Library of McGill University and the Library of the Academy of Medicine in Toronto, historical collections were significant and enriched her studies in the history of medicine. It should be recalled that during Charlton's tenure as Assistant Medical Librarian at McGill University, both current and historic medical collections were subsumed in one collection in the Medical Library. It was in 1929 with the arrival of the bequest of Sir William Osler's

historical collection at McGill University that a history of medicine library came into existence. It was later to be enhanced by extensive transfers of rare and valuable historical materials from the stacks of the Medical Library, as McGill librarians became aware of the value of these early medical books and the need to protect them.

The circumstances under which Miss Charlton left McGill University appear to have been far from amicable. In Dr. Francis' 1936 Presidential Address to the Medical Library Association, he speaks compassionately of her departure from her beloved library:

> To lose a job to which one has devoted head, heart, hand and twenty of one's best years must be one of the major tragedies of life. Each of us is his own worst enemy, and if Miss Charlton was a hero-worshipper, her aversions were equally strong and not always so reasonable. Her principles, I think, were uncompromisingly rigid. For years she had worked under a chief, the Honorary Librarian, a member of the Faculty, one who is an extraordinary angelic combination of wisdom, courtesy, patience and good humor. In other words, she had been largely her own master. In 1913, he was succeeded by a new broom which raised a lot of dust. After a year of intolerable friction the new chief drew up a program which she could not, or would not, carry out. The irresistible force met an immovable spirit in a not unremovable body and in May, 1914, she resigned. A bitter sense of injustice prevented her ever revisiting her old haunts, and 15 years later I could not induce her to come, openly or surreptitiously, to see the newly arrived Osler Library which would have interested her intensely.[12]

A review of the subsequent publications of Margaret Charlton verifies Dr. Francis' observation that the Osler Library would indeed have interested her intensely. She was yet to produce her most substantial historical writing, a series of articles on the history of medicine in Lower Canada, published in four parts in the *Annals of Medical History* between 1923 and 1924.[13] In this series, beginning with medicine in Quebec during the French regime, 1608-1759, Miss Charlton draws on her knowledge of Quebec and her ability to use historical resources effectively. These articles appeared almost a decade after Margaret Charlton left Montreal for her position as Librarian of the Academy of Medicine. Yet, obviously, her mind remained much occupied with Quebec during her tenure at the Academy. One suspects that Margaret Charlton's spiritual home remained McGill and the Montreal medical community.

The *Annals of Medical History* articles draw on Margaret Charlton's knowledge of Quebec history and the history of medicine. In the first article of this series, on the coming of the first physicians to Canada and Louis Hébert, her account is factual and somewhat pedantic:

> Every student of Canadian history knows that from the first days of the colonization of New France, an important role as colonists was played by members of the medical profession.[14]

Her account of the early colonization of Quebec is detailed with important facts and dates, although the contemporary historian may wish that she had documented her sources more thoroughly in the interests of those who tread her footsteps over sixty years later. Her account of the terrible havoc and ruin which the Iroquois were to bring upon the French settlements shows her conceptual framework as thoroughly indoctrinated with a conventional attitude towards the Indian wars.

But Margaret Charlton's account of Jeanne Mance and her resolve to minister to the sick and suffering of Quebec is both warm and compassionate. This detailed review of the contribution of Jeanne Mance to medical care in New France tempts the student of Margaret Charlton's life to wonder how closely she might have identified with this devoted "religieuse." She refers to Jeanne Mance's virtues, "the rare qualities of courage, zeal, tact, and an unfailing sympathy and tenderness of heart."[15] Despite the gulf of time that separated these two women, the distance between them narrows in reading Margaret Charlton's remarks on Jeanne Mance. Like Miss Charlton who was injured in a strange, painful accident when a heavy electric globe fell on her head during a train voyage from Toronto to Montreal,[16] Mlle Mance

experienced an accident when she fell on the ice and broke her right forearm and dislocated the wrist. The fractures were treated, but the dislocation was not discovered until it was too late to cure. Jeanne Mance suffered much from this injury and was prevented from ever resuming her active work in the hospital. Margaret Charlton also suffered greatly from her accident until her death on May 31, 1931 at the age of 72, nine years after the accident occurred.

In the second and third articles in her *Annals of Medical History* series, M. Charlton, as she is identified in these articles, reviews early epidemics in Lower Canada, detailing the progress of St. Paul's Disease in Quebec, which was described in the literature of the period as "nothing more than a confirmed syphilis showing itself in different ways in different parts of the body and making anomalous symptoms and appearances accordingly. The habits of Canadians facilitate its communication in various ways."[17] The epidemic of the Molbay Disease, eponymiously named after its first discovery in the Parish of Molbay below Quebec, is also described in part two in great detail, quoting extensively from the literature of the period. These full text reproductions of the early writings on contagion provide valuable historical documentation for contemporary historians of disease who lack access to the original source documents.

In the third article, Margaret Charlton continues her examination of disease in Quebec after the victory of General Wolfe. She branches into issues of early medical licensure in Quebec and the growth of medical practice. These articles provide a wealth of fascinating factual information: "In 1806, Dr. Blanchet, with four other French Canadians, founded in Quebec the first French newspaper in Canada. It was named *Le Canadien*, and had as its motto "Nos institutions, notre langue, et nos lois."[18] Similarly, we learn that "the earliest inoculation in Canada was performed at Quebec in the year 1768 by a Mr. Latham, surgeon to the King's (or Eighth) Regiment of Foot."[19] This article, like its predecessor, is characterized by heavy reliance on primary source documents, some of which are reproduced in their entirety. It is evident that the author used fully all historical resources available to her.

In the fourth and final of the *Annals* articles, referred to as her "magnum opus" by Dr. Francis, Margaret Charlton returns to the Faculty of Medicine of McGill University. Despite her refusal to return to McGill, she demonstrates in this article that, in spirit, she never left the University. She shows herself to be a Canadian nationalist as well, when she writes "It was not until the beginning of the nineteenth century that those wishing to pursue the study of medicine could do so in their own country."[20] This fourth article in the series provides historians with an excellent summary of the development of medical education in Montreal. Margaret Charlton describes education for medicine prior to the foundation of medical schools in the province and the early days of medical education in Quebec. Quoting from the work of Professor Francis J. Shepherd, [21] she elaborates on the difficulties involved in obtaining subjects for dissection and on the practice of body-snatching and reviews the work of early Quebec medical luminaries. She appears to have been especially interested in the treatment of the insane in Quebec and in improvements brought about in the mid-nineteenth century by Dr. James Douglas.

Of particular interest to librarians and medical history scholars is Miss Charlton's review of the development of the medical journalism in Canada. Not surprisingly, the reader learns that the first medical journal in Canada, *Le Journal de Médecine de Québec*, was published in both French and English in Quebec in 1826. Simultaneous with this short-lived journal was the establishment of the Quebec Medical Society. Later in the same article, the author returns to the subject of early Canadian medical publishing. She notes the appearance of the first English language medical journal in 1844, the *Montreal Medical Gazette*, under the editorship of Dr. Francis Badgley and Dr. William Sutherland, equally short-lived, lasting only from April 1844 to April 1845. Shortly thereafter, another journal, the *British-American Medical and Physical Journal* appeared. It was largely the work of members of McGill University faculty.

Margaret Charlton also considers in this article the beginning of the collecting of morbidity and mortality statistics in Lower Canada. She notes that, "by 1839 Montreal had one of the best water supplies of any city on the continent. Some of these pipes have been lately presented

to the Hygiene Museum of McGill University. They were dug up during the widening of St. Antoine Street."[22] Public hygiene and the development of a growing immigrant population, largely English speaking, promoted the development of health care facilities, and she documents the work of the Montreal Emigrant Society and the Female Benevolent Society which led to the development of "The House of Recovery," to become, in 1819, the Montreal General Hospital. She draws upon the resources of the McGill Medical Library in documenting the early history of this hospital. Again, her nationalism, both general and local, rises to the fore as she notes, "Canadians cannot but feel proud when they realize how much had been accomplished in less than a century .... The first four physicians in the Montreal General Hospital and the Medical Institution must ever be accounted by Canadians as men who filled a high position with great ability. As Dr. Howard remarked: 'Too much stress cannot be given to the fact that the existence of McGill University is largely due to these men'."[23]

Margaret Charlton describes the developments that led to the foundation of McGill University and the Faculty of Medicine, whose histories are indelibly entwined. The creation of a university from a flourishing medical school, The Montreal Medical Institution, has been fully described and carefully documented elsewhere.[24] Miss Charlton's prose captures the flavour of this development as well as her glowing views of this event:

> The founders of the school gave up its identity to save the charter of that [McGill] University, and it is interesting to note that the university originally owed its existence to the medical man: Dr. Stephenson, when others were indifferent, worked with such energy that he secured the bequest of James McGill for a college, when his will was being successfully contested by his heirs.[25]

Margaret Charlton's articles in the *Annals of Medical History* tell us much about the history of medicine in Quebec. Her approach to her vast subject is chronological, and she branches off at frequent intervals. She does not always document her historical references thoroughly, and she frequently returns to a subject, as in the case of early medical publishing, with the result that her story is at times fragmented. Nonetheless, these articles are a historical treasure, and the reader today senses that she poured her heart as well as her mind into their writing. They are truly her farewell to a profession and a University that she continued to love long after she had left it.

Notes

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1. Margaret Charlton collaborated with Miss C. A. Fraser in writing several books: *A Wonder Web of Stories* (1892) and *With Printless Foot* (1894). The former is a two volume collection of fairy tales, the first such collection to be published in Canada. She is cited in *Canadian Men and Women of the Time* (1898) and in R. E. Watters: *Checklist of Canadian Literature, 1629-1960*. 2nd ed: (1972) Toronto, University of Toronto Press. The help of Marc Richard, Reference Librarian, McLennan Library, in locating these references is gratefully acknowledged.

2. W.W. Francis, "The President's Address: Margaret Charlton and the Early Days of the Medical Library Association." *Bulletin of the Medical Library Association*, 25 (1936): 61.

3. Martha Benjamin, "The McGill Medical Library, 1829-1929;" (a thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Library Science, Montreal, 1960), p. 93.

4. Martha Noyes, Tuesday Evening Meeting. (Recorded comments). *Bulletin of the Medical Library Association*, 23 (1934): 33.

5. The history of the founding of the Association of Medical Librarians, later the Medical Library Association, is contained in the papers of the Medical Library Association housed

in the Archives of the National Library of Medicine, Bethesda, Md. Permission to quote from these letters is given by the Executive Director of the Medical Library Association. The author acknowledges with gratitude the assistance of Mr. Peter B. Hirtle, Curator, Modern Manuscripts, History of Medicine Division, National Library of Medicine. Information and quotations are drawn from the letters of Miss Charlton in this collection dated March 31, 1898; May 6, 1898; June 27, 1898; July 18, 1898; July 25, 1898; February 10, 1899; February 20, 1899; May 27, 1899; July 14, 1899; September 6, 1899; September 19, 1899; October 16, 1899; October 23, 1899; March 22, 1900.

6. W.W. Francis: 62.

7. The correspondence and other administrative materials related to the history of the Medical Library of McGill University are housed in the Archives of the Osler Library. The Librarian's Reports and Minutes of Meetings of the Library Committee are contained in this collection. In 1988 the name of the Medical Library was changed to the Health Sciences Library.

8. McGill University, Faculty of Medicine. Library Committee. Minutes of Meeting held February 26, 1908.

9. McGill University, Faculty of Medicine. Library Committee. Minutes of the Meeting held November 29, 1912.

10. Letter from Dr. Finley to Dr. W. W. Francis, dated November 8, 1936 and quoted in Benjamin: 95.

11. McGill University, Faculty of Medicine. Report of the Assistant Librarian to the Library Committee, 1902.

12. W.W. Francis: 61.

13. M. Charlton. "Outlines of the History of Medicine in Lower Canada under the French Regime, 1608-1759" *Annals of Medical History*, 5 (1923): 150-174.

_____. "Outlines of the History of Medicine in Lower Canada. Continued." *Annals of Medical History*, 5 (1923): 263-278.

_____. "Outlines of the History of Medicine in Lower Canada under the English Regime." *Annals of Medical History*, 6 (1924): 222-235.

_____. "Outlines of the History of Medicine in Lower Canada. Conclusion." *Annals of Medical History*, 6 (1924): 312-354.

Miss Charlton also contributed to Canadian medical history outside Quebec through her article on Christopher Widner (1780-1858), a veteran of the War of 1812 and the first qualified physician in York. *Annals of Medical History*, 4 (1922): 346-350. For a short commentary on the *Annals* articles, see Sylvio Leblond, "Margaret Charlton: notice biographique." *Canadian Society for the History of Medicine Newsletter* (Spring, 1983): 15-16. I am grateful to Dr. Carole Gerson, Vancouver, who is compiling a biographical dictionary on some 400 Canadian women who published fiction in Canada prior to 1940 for drawing this article to my attention.

14. Charlton. *Annals*. 5: 151.

15. _____. 5: 159.

16. W.W. Francis: 62.

17. Letter written by Dr. Charles Black, surgeon, and quoted by Charlton. *Annals*, 5: 266.

18. *Annals*. 6: 266.

19. *Annals*. 6: 233.

20. *Annals*. 6: 312.

21. Francis J. Shepherd, *Reminiscences of Student Days and the Dissection Room*. (Montreal: 1919). Privately printed.

22. *Annals*. 6: 323.

23. *Annals*. 6: 327.

24. Edward A. Bensley, "The beginnings of teaching at McGill University." *McGill Journal of Education* (1971) 6. 1: 1-2.

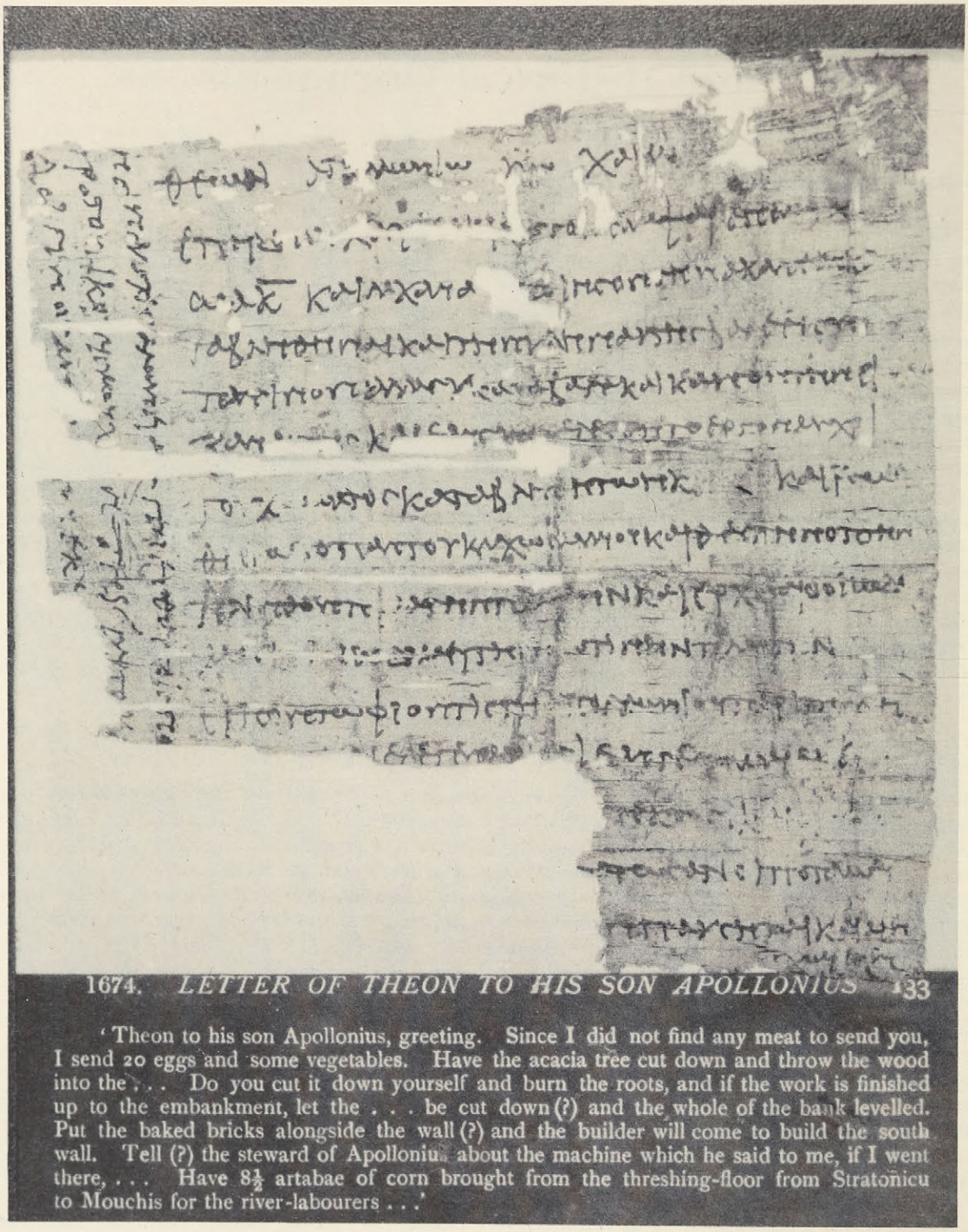
25. *Annals*. 6: 333.

Hidden Treasures at McGill: A Survey of Manuscripts and Historical Documents

by Raymond Klibansky

This study is designed to convey an idea of the wealth of material preserved in the various collections of McGill University. In particular, attention is drawn to the many important documents that have remained unnoticed and to the unexpected discoveries to be made. In the survey of the Greek manuscripts, account is taken of the papyri found in Egypt of the second and third century, A.D. Among the charters found in the Latin collection there are several by Popes of the Italian Renaissance, two of them issued by well-known humanist scholars, as well as a surprisingly large number linked with successive doges of Venice. The survey of manuscripts bearing on English literature and history mentions unpublished letters by Hannah More and her sisters, James Forbes' travel journal, the Hardinge papers, as well as autographs of many nineteenth century writers. It focuses on the outstanding collection concerning David Hume in which no less than 50 letters in his hand have been found as well as several books from his library. The survey is followed by a summary description of important source material bearing on the history of Canada, both under the French and the English regime. A further section deals with the documents illustrating the history of science from the thirteenth century to the present. They include Newton's copy of his Opticks, *with corrections in his own hand; and letters by Babbage, Faraday, Herschel and other outstanding scientists. In a sketch of the main special collections, particular mention is made of the books from Kierkegaard's library and the remarkable Fishstein collection containing rare items of Yiddish literature.*

*Cette étude vise à donner une idée des richesses que renferment les différentes collections de l'université McGill. En particulier, elle signale de nombreux documents, jusqu'ici inconnus, et fait pressentir les découvertes inattendues qui attendent le chercheur. Au chapitre des manuscrits grecs, mention est faite des papyrus des deuxième et troisième siècles de notre ère découverts en Égypte. La collection d'ouvrages en latin comprend plusieurs chartes de papes de la Renaissance italienne, dont deux publiées par d'éminents humanistes, ainsi qu'un nombre surprenant de chartes émanant des doges de Venise. Parmi les manuscrits consacrés à la littérature et l'histoire anglaises figurent des lettres inédites d'Hannah More et de ses soeurs, le carnet de voyage de James Forbes, le fonds de Hardinge ainsi que les autographes de nombreux écrivains du dix-neuvième siècle. Ce tour d'horizon est tout particulièrement consacré à la collection impressionnante de documents se rapportant à David Hume qui comprend non moins de 50 lettres écrites de sa main ainsi que plusieurs livres de sa bibliothèque personnelle. Cette étude est suivie d'une description sommaire des principaux documents sur l'histoire du Canada, sous les régimes français et anglais. Un autre chapitre est consacré aux documents illustrant l'histoire des sciences, du treizième siècle à nos jours. Parmi eux figurent un exemplaire de l'*Opticks *de Newton, corrigé de sa main, ainsi que des lettres de Babbage, Faraday, Herschel et d'autres grands hommes de science. L'aperçu sommaire des principales collections spéciales mentionne en particulier les livres de la bibliothèque personnelle de Kierkegaard et la remarquable collection Fishstein qui réunit des exemplaires rarissimes de la littérature yiddish.*



1674. *LETTER OF THEON TO HIS SON APOLLONIUS* 133

'Theon to his son Apollonius, greeting. Since I did not find any meat to send you, I send 20 eggs and some vegetables. Have the acacia tree cut down and throw the wood into the . . . Do you cut it down yourself and burn the roots, and if the work is finished up to the embankment, let the . . . be cut down (?) and the whole of the bank levelled. Put the baked bricks alongside the wall (?) and the builder will come to build the south wall. Tell (?) the steward of Apollonius about the machine which he said to me, if I went there, . . . Have 8½ artabae of corn brought from the threshing-floor from Stratonicu to Mouchis for the river-labourers . . .'

Figure 1. Greek papyrus, Oxyrhynchus no. 1674, 3rd century A.D.

It is the duty of any library of scholarly standing to make its collection of manuscripts accessible by insuring that its holdings are known. Most of the manuscripts may have been presented by generous donors or bought by successive librarians. That these holdings should remain unknown, is either contrary to the donors' intention or a waste of university money. It cannot be justified. I venture to express the hope that McGill will soon, like other university libraries, be able to present a well-prepared detailed catalogue of its manuscripts, available to scholars throughout the world.

The following survey is designed to draw attention to the wealth of material preserved at McGill, to convey an idea of its distribution among a great variety of traditions and languages, and to point to some of the remarkable documents which have remained unnoticed so far.

* * * * *

THE PRESENT SITUATION

The McGill collections are divided among various institutions which form part of the University: the bulk of Western manuscripts and not a few Oriental ones are under the care of the Rare Books and Special Collections Department (RBD) of the McLennan Library. The majority of Oriental manuscripts are housed in the library of the Institute of Islamic Studies, the Blacker-Wood Library of Biology, and the Osler Library. The collection of manuscripts concerning the history of medicine and kindred subjects in the history of science forms part of the Osler Library in the McIntyre Medical Sciences Building.

Cuneiform tablets, cylinder seals, a few Egyptian papyri and examples of Sinhalese documents on strips of palm leaves are preserved both in the Redpath Museum and – together with a few Greek papyri – in RBD.

In addition to one Latin codex, the Religious Studies Library possesses five Armenian manuscripts; together with 8 other Armenian manuscripts and fragments they are housed in RBD. Two of these are described in A.K. Sanjian's *A Catalogue of Medieval Armenian Manuscripts in the United States.*[1]

The McCord Museum of Canadian History contains many important documents concerning the history of Canada, but it also has a series of parchments, to which little attention has been paid so far, dealing with French history from the end of the fifteenth to the seventeenth century.

Some interesting papers illustrating early Canadian history are part of the Lande Collection of Canadiana on the fourth floor of the McLennan Library.

Finally, the University Archives house, first and foremost, the administrative and legal records of the University as a whole from its beginnings, as well as that of its component parts, and much material relating to generations of teachers and students.

As to the total number of manuscript documents in these collections, it is still too early to provide a precise figure. At a rough estimate, they amount to several thousand items. Since they have never been sorted according to language or time of origin, they present a bewildering mass. The first task, therefore, is to make an end to this haphazard arrangement by grouping them into the various languages. The following outline is designed to serve this end.

The manuscripts fall into two main groups: (I) Oriental and (II) Western.

(I) Oriental

The collection of Islamic manuscripts contains over 650 volumes written in Arabic, Persian, Ottoman Turkish or Urdu. The Arabic and Persian manuscripts are by far the most numerous, constituting well over 90% of the whole. Thanks to the initiative of the Director of Libraries, Dr. Eric Ormsby, the description has been taken in hand. The Arabic manuscripts, about 280 volumes, have been examined by Adam Gacek, Librarian of the Islamic Studies Library. To a large extent, they represent a Shiite collection from Iran; a few come from Turkey. They concern Islamic sacred law and theology but also philosophy, in particular Avicenna with commentators. It is planned to publish a catalogue which will take the place of the very brief and insufficient summary at present available in *North American Collections of Islamic Manuscripts.*[2]

A rough list of the Muslim manuscripts from India at the Blacker-Wood Library is contained in *A Dictionary Catalogue of the Blacker-Wood Library of Zoology and Ornithology*.[3] They were collected in India in 1926-29 for Dr. Casey Wood, by Wladimir Ivanov, formerly Assistant Keeper of Muslim manuscripts in the Asiatic Museum at the Imperial Russian Academy of Sciences at St. Petersburg and afterwards cataloguer of manuscripts at the Asiatic Society of Bengal in Calcutta. Of the 320 items bound in 238 volumes, most are in Persian, the language of the Mughal court and, generally, of culture in Muslim India until modern times. There are also 75 manuscripts in Arabic, the language of religion, and half a dozen more recent ones in Urdu, the popular language.

The Osler Library contains 79 Arabic and 68 Persian manuscripts. Many of these come from Dr. Casey Wood's ophthalmologic collection, of which a substantial part was acquired from Max Meyerhof, the well-known Islamic scholar in Cairo. A series of 19 Sinhalese medical codices was also presented by Casey Wood. A checklist of manuscripts on general medical topics by Wladimir Ivanov is published in the *Bibliotheca Osleriana* (see below) which also contains notes regarding a few other Oriental manuscripts.

RBD houses not only 40 manuscripts in Arabic, Persian and Ottoman Turkish, it also contains, as I learned from A. Gacek, a remarkable collection of over 200 specimens of the finest Arabic calligraphy which he discovered there together with a collection of exquisite book-covers, many of them from Srinagar (Kashmir).

Very brief descriptions of the approximately 200 manuscripts in Indian languages preserved in RBD, Blacker-Wood and in Osler – among which there are fragments from the Rigveda and the Mahabharata – are found scattered in the *Census of Indic Manuscripts in the United States and Canada*.[4]

One Egyptian item in the Redpath Museum has been described and illustrated in four plates by David Berg in the *Journal* of the Society for the Studies of Egyptian Antiquities.[5]

The numerous cuneiform tablets and cylinder seals in the Redpath Museum and in RBD were examined by the Royal Inscriptions of Mesopotamia Project at the University of Toronto in 1983; so far no detailed description of contents has been provided. The brief account of nine cuneiform documents given in 1922 in a letter by Dr. C.G. Gadd of the British Museum is still the best guide for at least a part of the collection of the Redpath Museum. A Neo-Babylonian tablet with omens and divinations derived from the state of the liver is considered to be of particular importance.

A systematic investigation by experts is required to sift the precious Babylonian and Egyptian documents from the fakes which are undoubtedly found in these collections.

(II) Western

Without any distinction of languages, descriptions of the Western manuscripts are at present found in the following four lists:

A) The de Ricci Census

In the first place, any scholar would consult the *Census of Medieval and Renaissance Manuscripts in the United States and Canada*, by Seymour de Ricci.[6] In this *Census*, the manuscripts of the "Library of McGill University" (the collection now in RBD) are listed on pp.2203-2229, followed by the description of the documents of the McCord Museum, pp.2230-2231. The descriptions are the result of de Ricci's visit to McGill in 1932 which, he says, "was a short one." He adds that "he would have been glad to devote more time to the single leaves and initials from Italian choir books; they would repay a close study."[7]

The *Census* considers only the manuscripts written before 1600 – a total of 178 in RBD, 31 in Osler, 18 in the McCord Museum; but even with regard to these, it is far from being complete.

No one equalled de Ricci's knowledge of sales catalogues. He was able to trace the history of almost any manuscript which, since the beginning of the nineteenth century, had changed hands in public auctions or was listed in booksellers' catalogues. His knowledge of manuscripts and their fate was uncommon. However, his descriptions of the McGill holdings are summary and not always reliable. They show clear signs of haste and, alas, sometimes contain astonishing errors. To give two examples: MS de Ricci 112 is described as a "treatise in a German dialect"; it is in fact in Old-Slavonic. MS de Ricci

4 is presented as "in Armenian with Greek portions"; it is a Greek manuscript with musical notations which have wrongly been taken to be Armenian script.

In the *Supplement to the Census* published in 1962[8] no account is taken of the numerous additions of manuscripts before 1600 made since de Ricci's visit in 1932; nor does it contain any corrections whatsoever of his descriptions of McGill manuscripts.

B) Bibliotheca Osleriana

The manuscripts are listed in Sir William Osler's *Bibliotheca Osleriana. A Catalogue of Books Illustrating the History of Medicine and Science. Collected, Arranged, and Annotated by Sir William Osler, Bt. and Bequeathed to McGill University.*[9] The descriptions are brief, but helpful and on the whole accurate. Since the completion of the catalogue several accessions have been added to the collection.

C) European and American Manuscripts

A mimeographed handlist of European and American manuscripts,[10] completed in 1962, aims at listing the manuscripts of the University Library "exclusive of the mediaeval and oriental manuscripts and of the Autograph Letters collection." It lists 771 items. Some of these appear also in de Ricci's list; however, there is no indication of the discrepancy between the classification in de Ricci and the shelfmarks given in the handlist. The descriptions are brief and in not a few cases erroneous.

D) Union List of Manuscripts in Canadian Repositories

The first attempt at providing a summary handlist of all manuscripts in Canadian libraries and archives in a series of volumes published in Ottawa by the Public Archives of Canada (revised edition, vols. 1-2, 1975; and four Supplements, the last one of 1981-82, published in 1985), in itself a laudable enterprise, fails to give an adequate account of the material found at McGill. Many of the precious documents mentioned in the following pages have remained unnoticed.

E) Guide to Archival Resources at McGill University

A Guide to Archival Resources at McGill University[11] consists of three volumes: Volume I, *The Archival Records of McGill University*, presents a useful survey of all the University records. Volume II, *Private Papers held at McGill University (Part I)*, lists the material concerning teachers and students as well as brief indications concerning documents in the fields of medicine and the sciences, business and economy. Volume III, *Private Papers held at McGill University (Part II)*, lists documents concerning war and the military, politics and the government, culture, literature and the arts, professions and trades, social and philanthropic organisations, religious and fraternal organisations, family and private life, travel and exploration. The parts dealing with historical and literary manuscripts often follow the indications provided in European and American Manuscripts above, adding some further information. In some cases, errors of the latter have been repeated. Useful as this survey is, it is incomplete.

To my surprise, I found that McGill possesses numerous documents ranging from the fourteenth to the nineteenth century which are not listed in any of the foregoing catalogues. Several of these are of considerable literary interest.

CLASSIFICATION

Arranged according to countries and languages, the manuscripts, historical documents and papers are distributed as follows:

(I) Greek

A) Papyri

RBD contains a collection of five Greek papyri, found in Egypt, of the second and third century A.D.: Oxyrhynchus nr. 1517, A.D. 272 or 278, contains an official account of money payments, probably for oil; nr. 1541, A.D. 192, is a receipt for payment by two persons, one of them a Roman citizen; nr. 1555, A.D. 260 to 261, contains two declarations under oath concerning surety, probably for appearance at an inquiry; nr. 1685, A.D. 158, is part of a badly-spelled lease of two lots of land from a woman to two Persians; nr. 1674, third century, is the oldest personal letter at McGill (Figure 1). It begins: "Theon to his son Apollonius, greeting. Since I did not find any meat to send you, I send 20 eggs and some vegetables." But he is also

expected to carry out some work on his father's estate. "Have the acacia tree cut down and throw the wood into the (?)... Do you cut it down yourself and burn the roots... Put the baked bricks alongside the wall and the builder will come to build the south wall."[12]

There is, moreover, a small framed papyrus fragment of the fifth century.

B) Manuscripts

The collection contains no classical texts, but gospels, manuscripts of liturgical and musical interest as well as one eighteenth-century book of popular medicine with a glossary of medical terms. De Ricci's description of the items of religious content have to be corrected in several places with respect to dating. The interesting question of the authenticity of the illustrated headpiece of the lectionary of one of the gospels (de Ricci 3) has been solved by Professor George Galavaris of McGill University, who has agreed to prepare a detailed catalogue of the 12 Greek manuscripts in the collection at McGill. Special mention should be made of a small palimpsest fragment (MS Coptic 2) of the fifth century, with a Coptic magic formula superimposed at a somewhat later date.

The difficulties confronting those who set out to describe manuscripts without having some expert knowledge of the literature is shown by an item (M 228 Bd Box V) disregarded by de Ricci and described in the McGill lists above as an original Greek poem by Dick Aberdaron entitled "An Ode of Harps," dated "circa 1820." In fact, the manuscript of ten small pages is a Greek-orthodox poem, describing not harps, but the strings of the lyre as a symbol of the Trinity. "Dick Aberdaron" is not the author but the nickname of the scribe who copied this text for "Turner" whom we take to be William Turner, the British diplomat and correspondent of Byron, who was based in Constantinople from 1812 to 1816 and returned there later as Secretary to the British Embassy. In his three-volume *Journal of a Tour in the Levant*, dedicated to George Canning,[13] Turner reports his visits to the islands and mainland of Greece; he expresses his great interest in "Romaick" (that is Byzantine) literature and speaks of his having collected everything he could find relating to this subject. The identification of William Turner is reinforced by a note on the manuscript signed "M. Turner," who states that the poem was copied for his father; William Turner's son bore the name Mansfield.

(II) Latin

There are few texts of classical authors: Cicero, *De amicitia, De senectute, Paradoxa Stoicorum* (de Ricci 136), Cicero, *De officiis* (de Ricci 137); an imperfect copy of Ovid's *Fasti* (de Ricci 135); Frontinus, *Stratagemata* (de Ricci 139). They are all of Italian origin, dating from the middle or the later half of the fifteenth century; compared with the numerous extant witnesses of these texts, they do not possess any particular distinction. The same applies to the major part of the patristic and mediaeval manuscripts.

The collection contains many illustrated choirbooks and no less than 80 miniatures and initials, most of them bequeathed by well-meaning donors, who were unaware of the fact that by acquiring single leaves or, worse still, initials cut out of manuscripts, they encouraged the vandalism of unscrupulous booksellers. A further forty vellum leaves and initials are not listed in de Ricci; most of them come from liturgical manuscripts, a few contain fragments from the *Sentences* of Petrus Lombardus and a piece on canon law. The existing descriptions are based on those provided by the booksellers from whom the leaves were acquired; they merit little credence. For instance, those from a Roman breviary of 1464 are said to come from the "Cistercian Abbey of Lucca near Hanover," Lucca being a mistake for Loccum.

There are only a few patristic texts, all of the fifteenth century: Augustinus *De libero arbitrio* (de Ricci 113), written in Venice, and Isidorus *De summo bono* (de Ricci 115), from Northern Italy. A third, not mentioned in de Ricci's catalogue, is St. Jerome's *Dialogue with Pelagius*, written in a German hand, about 1470. It is bound in at the end of an incunable, Paulus de Sancta Maria's *Scrutinium scripturarum* (Strasburg, ca. 1471) and follows upon another manuscript, written slightly later, also in a German hand, bound in the same volume, Peter of Blois' *Glosula moralis super Iob* (= *Compendium in Job*, Patrologia Latina 207, col. 795-826), dedicated to Henry II, King of England.

The bulk of the collection consists of biblical and liturgical manuscripts, lectionaries, missals,

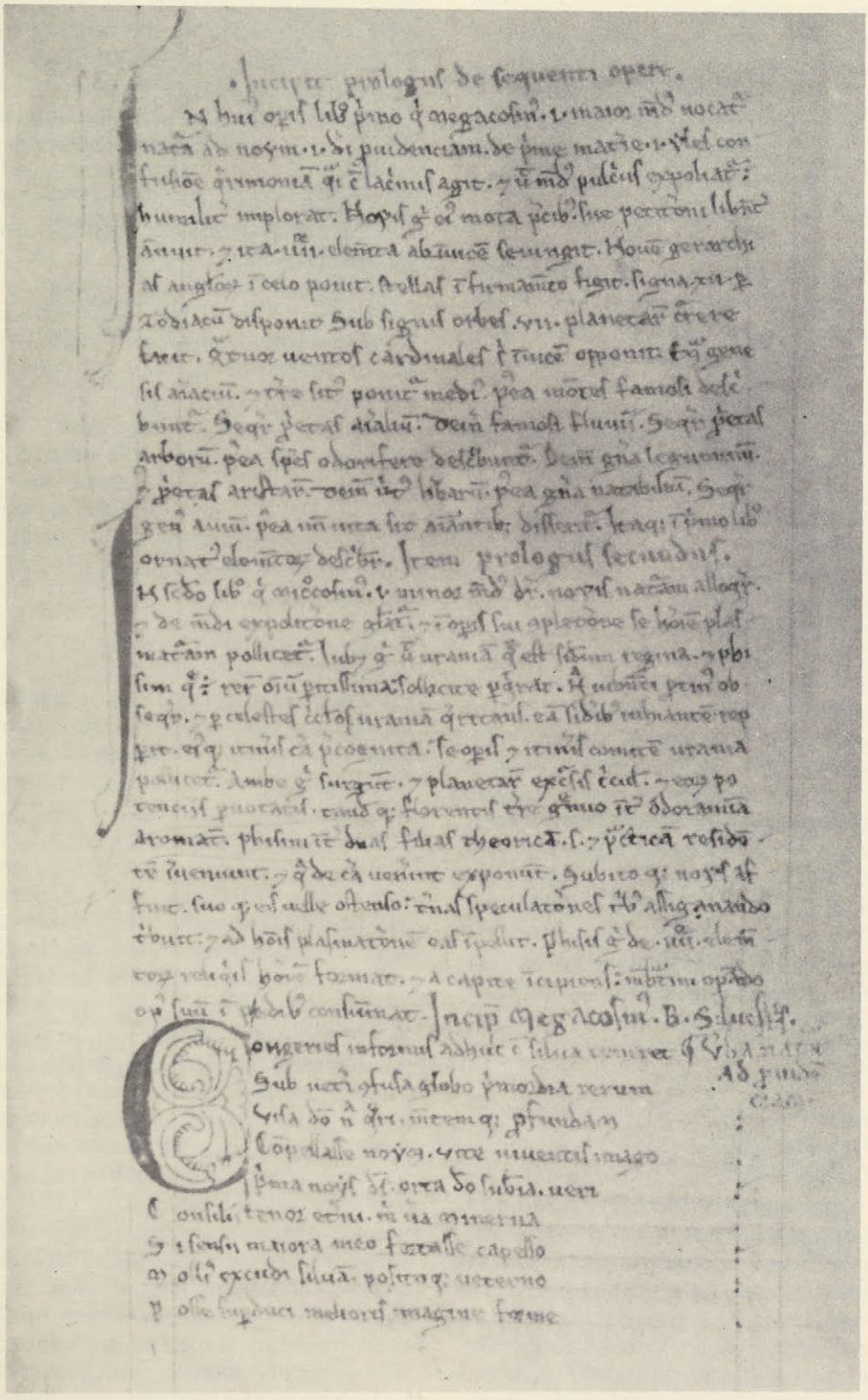


Figure 2. Bernardus Silvestris, *De mundi universitate*, fol. 1[r] (MS Latin 1).

Books of Hours, legends of the Saints, sermons and books on canon law, none of them older than the thirteenth century. Over fifty of these are listed by de Ricci, to which three Books of Hours have been added (MS Latin 99a, MS Latin 99b, MS Latin 108a). Some of the miniatures and initials are of good quality; many others are no more than average.

One codex of the fourteenth century (de Ricci 134) has a particular relevance for the history of astronomy. It contains a commentary on John of Hollywood's *Sphera* and various other treatises, followed at the end by a short treatise (not recognized in Lynn Thorndike's brief description) on the names of the Devil (fol. 29^{v}-30^{r}), going back ultimately to Isidorus and Jerome. This will be published separately.

As well as many medical manuscripts, the Osler Library has a copy of Michael Scotus' translation, made in the early thirteenth century (from an Arabic version of the early ninth century), of Aristotle's *Historia animalium*, with parts of a commentary (Osler 238; *Aristoteles latinus* ed. G. Lacombe, no. 14), which is misleadingly called *De animalibus*, and a copy, written in 1437, of the *Liber de homine* and the *Quaestiones de bono* by Albertus Magnus (Osler 7506). This manuscript, in a neat contemporary binding of stamped brown leather and two clasps, has two flyleaves in parchment (counted by a modern hand as fol. 1 and 289), which contain – not, as the Osler catalogue states, a "treatise on prophecy," but – a long fragment, in a hand of the fourteenth century, on philosophy (in particular, on the various definitions, the divisions and the 'symbolic' representation of philosophy), and on the liberal arts.

The Library also contains two manuscripts of special interest, one for the history of astrology, the other for the history of alchemy:

MS Osler 7513, written about the middle of the fifteenth century, is described in the Osler catalogue as *Summa iudicialis astronomie*. According to the introduction, it bears in fact the title *De interrogationibus*, since it deals with that part of astrology which concerns specific questions. It provides answers to such diverse problems as whether or not there will be war between two armies; whether there was one thief or more; whether the thief was male or female; whether an object to be sold should be priced highly or not. The author proposes to collect and to sum up the relevant doctrines of all the important writers, "antiqui et moderni," singling out in particular Ptolemy, Dorotheus, "Aristotle" and the Arab masters Alkindi, Abû Ma'šăr, Abenragel, Messahalā, Avicenna, but also "Guido," that is Guido Bonatti whom Dante had, with other prominent soothsayers like Michael Scott, banished to Hell for their deceitful arts (*Inferno* XX, 115, ff.). In fact, the author often follows Bonatti, for instance in his detailed description of those born under Saturn. They are of melancholy temperament and characterised by a string of unpleasant attributes. This manuscript was owned by the Venetian nobleman, friend of Pope Julius II, Cardinal of St. Marc (1461-1523) and patron of the arts, Domenico Grimani, the same who, as a good Venetian patriot, had arranged for the dispatches from the Milanese embassy at the Vatican to the Duke of Milan to be intercepted near Rome, and sent to Venice.

MS Osler 480, written on parchment in a neat hand of the fifteenth century, contains an elaborate treatise on alchemy, entitled *Liber de anima* by the author, who claims to be Avicenna. Since this book, in dialogue form, totally differs from Avicenna's book of the same title, well-known to, and used by, mediaeval philosophers in discussing the nature of the soul and problems of psychology, the attribution of this work on alchemy is now generally rejected in spite of the fact that such a careful scholar as Berthelot in his *La chimie au Moyen-Age* sees no good reasons to deny his authorship. Yet the criticism of alchemy in Avicenna's Epistle on this subject (now available in Anawati's French translation) makes the attribution to him untenable. As has been shown by Ruska (in *Isis*, vol. 21), the Arabic original was composed in Spain long after Avicenna's death. The Latin translation, which found many admiring readers, dates from the first part of the thirteenth century. In any case, the influence of this work in which the principles of Aristotelian logic are applied to alchemy is beyond doubt. It is guided by the thought that anything in the world is constituted by the elements; that each of these is in principle transformable into the others; that it is within the power of man to effect this transformation and that by his actions he does bring to fruition what is hidden in nature. In its Latin form, it was available in the thirteenth

century and frequently quoted as authority on the subject in Vincent of Beauvais's *Speculum naturale*, the leading encyclopaedia of the time; it is also used in Albert the Great's *De mineralibus*. A printed version appeared in *Artis chemicae principes*, Basle 1572.

This Osler manuscript is of particular interest on account of the remarks made at the end of the lengthy work (fol 227[r]) by the man who owned it at the beginning of the sixteenth century: "In hoc autem libro Polydorus Comes Cabalianensis invenit lapidem philosophorum verissimum." Hence, if we attach credence to his claim, Polydore, comte de Châlon (sur-Saône), found in this book the philosophers' stone. It is no surprise to see him providing further information as follows: "Quare sine dubio faciebat mirabilia in vita sua." (Therefore, without any doubt, he performed miracles in his life). He continues, "I beseech you all, you men of letters, to have this book with you when you eat, you drink, you sleep and whatever else you may do. For, if you take care, your efforts will not be in vain. Leave all other books aside and read only this one which is 'magister magistorum' (the master of masters). You will have a precious reward." He adds: "In cujus fidem et testimonium meum solitum signum apposui relligionis [*sic*]." His signature is indeed appended, vouching for the truth of his statement.

Among the mediaeval manuscripts, the most interesting is a copy of the famous cosmology in poetic form by Bernardus Silvestris, the twelfth-century master of Tours, *De mundi universitate* (Figure 2). The McGill copy (RBD MS Latin 1), written at the beginning of the thirteenth century and not yet listed anywhere, was unknown to the recent editor of Bernardus.[14] The manuscript affords a further proof of the wide diffusion of this important text. It omits the dedication to Thierry, the master of Chartres. Those who attempt to present Bernard's work as essentially in the Christian tradition fail to understand its peculiar nature just as much as previous scholars did when they laid stress on its unchristian character. The distinctive feature of this work consists in the use of Hermetic doctrines combined with those of Chalcidius' commentary on Plato's *Timaeus* and in the endeavour to incorporate them in the structure of a Christian conception of the world.

Humanist authors are represented by Leonardo Bruni of Arezzo and by Leonardo of Chios. The copy of Bruni's *De militia* (de Ricci 147), made shortly before 1450, was among those used by C. Bayley in preparing the edition of this text in *War and Society in Renaissance Florence* (Toronto, 1962). A small manuscript of the sixteenth century contains Leonardo of Chios' work *De vera nobilitate* (Bd 96) in which the Greek refugee scholar, known for his report on the fall of Constantinople, criticises Poggio's concept of nobility.

Neither of these manuscripts can claim any particular distinction nor do they show any sign of humanistic script. All the more impressive are the examples of the beautiful script of the age provided by the precious documents of the Papal Chancery, hitherto unnoticed, preserved in RBD. The first is issued by Pope Eugene IV, in 1433; the second by Pope Nicholas V, in December 1446; the third by Pope Pius II, in 1455; the fourth by Pope Paul II, in 1465, addressed to the Patriarch of Venice and signed by Matteo Palmieri, the Pisan humanist and author of the well-known *Chronicle*; the fifth by Pope Leo X, in 1517, addressed to Cardinal Domenico Grimani and signed in big letters by Bembo, the famous humanist; the sixth again by Leo X, to the Patriarch of Venice, in 1518. To these should be added an elaborately decorated document of 1489, also unlisted (found in Box III), in which Rodrigo Borgia, the later Pope Alexander VI, and other cardinals grant, in the name of Pope Innocent VIII, an indulgence of 100 days to the faithful who visit the Chapel of the Fourteen Martyrs ("Vierzehen Nothelfer vulgariter nuncupata") in the Diocese of Trent (Figure 3).

Among the neo-Latin books, the most interesting is no doubt a manuscript (Osler 7588) concerning Oxford at the time of Queen Elizabeth, written in the second half of the sixteenth century. It mainly reflects the various activities of Roger Marbeck, a prominent Oxford personality of the time. For many years a student of Christ Church and known for the elegance of his Latin style, he was appointed Public Orator for life in 1564 and, around the same time, elected Provost of Oriel. When Queen Elizabeth visited Oxford in 1566, he greeted her with a speech which she liked. On her subsequent visit,

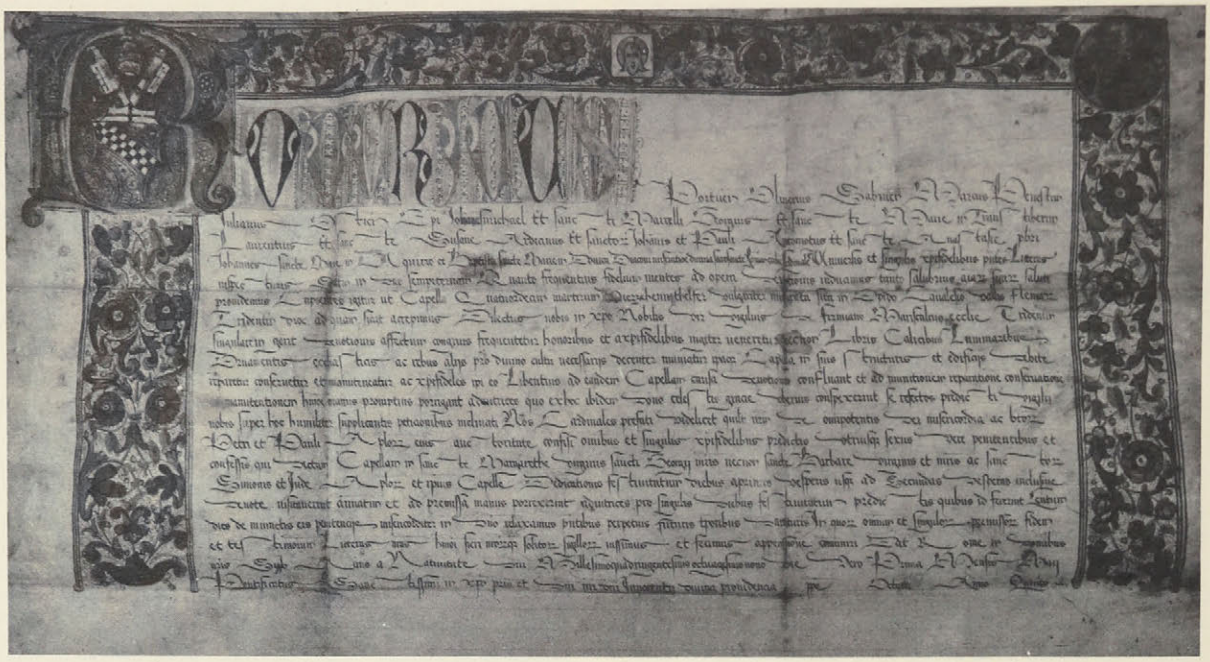


Figure 3. Indulgence of Rodrigo Borgia and fellow Cardinals, 1489.

he again delivered the Latin oration. According to the biographical sketch by W. Greenhill, "at this time, there seems to have been no more popular or distinguished member of the University; but an unhappy and discreditable marriage, which took place soon after, forced him to resign all his offices, to leave Oxford and to change the whole plan of his life." His wife died early and he decided to take up the study of medicine. A few years later, he obtained the B.M. at Oxford and the D.M. on the following day, and he became singularly successful in his new medical career. Elected Fellow of the London College of Physicians, he became its first Registrar and finally was appointed by the Queen Chief of Royal Physicians.

The Osler MS begins with a speech to Queen Elizabeth, delivered by him as Public Orator, expressing the good wishes of the University. It is followed by two strong attacks against the Roman Catholic Church, concluding with the wish that "the Roman Pope, the Antichrist, the Enemy of Peace, the Thief of human blood may be either converted or confounded." Next, there are various verses "ad Reginam Elizabetham" in which the Queen is urged in no uncertain terms to marry; for example, one under the title of "Nube": "Quod scripsi spero, quod scripsi postulo, Nube//Sic tibi, sic nobis utilis esse potes."

There are further verses commemorating Dudley being created Earl of Leicester. This is followed by medical advice for "his patron, the Secretary of State, Sir William Cecil" and a series of verses bearing Marbeck's name and addressed to many of his friends. It can be taken for granted that the major part of the book is by Marbeck. A detailed comparison with the original manuscripts preserved in Oxford, in the Bodleian Library, would make it possible to assess what it adds to the known part of his writings.

RBD possesses some translations of, and commentaries on, Aristotle of the sixteenth century (de Ricci 130 and 131) as well as some late scholastic treatises, dated mainly from the sixteenth and the seventeenth century, on logic and on Aristotelian philosophy in general (one, entitled *Aristotelicae philosophiae cursus*, a three-years course taught at the Congregation of the Oratory, has not yet been classified).

As to the provenance of the Latin manuscripts, a few come from Germany. The

Albertus Magnus of the fifteenth century (Osler 7506) was owned by the Carthusians of St. Barbara in Cologne. The Sermons of Simon of Cremona (de Ricci 122) can be traced with certainty to the Charterhouse of Buxheim which was suppressed in 1803 in the wake of the changes in Southern Germany resulting from Napoleon's victory. Many of the Buxheim manuscripts are now found scattered in various libraries of Europe – such as the recently identified Cusanus codex in Berlin – and North America.

From France come several more such as the codex containing the *Legenda Sanctorum* (de Ricci 117) which belonged to the Cistercian College of St. Bernard in Paris. Above all, many of the illuminated initials are cut from French manuscripts.

Most codices, however, come from Italy. The *Privilegia* of the Carthusian Order (de Ricci 128) originated in the Carthusian Convent at Florence; Franciscus Toletanus' *Commentary on Aristotle* (de Ricci 131), written in Rome, was owned by the Jesuits of Florence; the Frontinus (de Ricci 139) belonged to Alessandro Francisci de Riesciis, a wealthy Florentine merchant; a treatise on canon law (de Ricci 129) belonged to an Italian Franciscan; the Ovid (de Ricci 135) can be traced to Cremona; a seventeenth-century treatise on logic (de Ricci 133) bears the bookplate of Pope Clement XI. Several others are certainly of Venetian origin. For instance, the Augustinus mentioned above (de Ricci 113) was written for a monastery in Venice; Cicero *De officiis* (de Ricci 137) bears the arms of the noble family Corner of Venice; the astrological manuscript described above (Osler 7513) was in the library of Domenico Grimani, the Venetian Cardinal. This is one of the comparatively few of his books that have survived, the bulk of his famous library having been destroyed by fire. The addressees of the papal documents mentioned above are all located around Venice.

Lastly, from Venice comes the surprisingly rich collection of documents issued by successive Doges of the Republic which, hitherto unnoticed, will be described in a future article dealing with the history of Italy. Mention of the statutes in Latin of the University of Ferrara and of the merchants of Florence, as well as a brief description of the many later papal documents not yet classified will also be reserved for that article.

(III) Great Britain

Well over a hundred unlisted documents, from the fourteenth to the early nineteenth century, are preserved in RBD. They all provide details concerning the social and political history of England. Among the earlier ones, three documents in Latin and French of 1385 bearing the name of William Courtenay, Archbishop of Canterbury and Papal Legate (formerly Chancellor of Oxford University) – the enemy of Wycliffe and the Lollards – merit attention.

To single out one later parchment of particular interest: an indenture signed and sealed in July 1622 by Sir Oliver Cromwell – the future Lord Protector's uncle, after whom the nephew was named – concerns the sale of some of his estates to the Earl of Buckingham. It points to the fact that the territorial power of the Cromwell family was declining not long before the younger Cromwell stood for Parliament. The older Oliver is referred to as "Cromwell, alias Williams." It shows that it was not forgotten that the family fortune was due to Richard Williams who had changed his name to Cromwell when he married into the family of Thomas Cromwell, the Minister of Henry VIII.

Among the documents of the same time, one of 1624 may be mentioned, concerning Robert Devereux, the third Earl of Essex, who was to achieve fame as parliamentary general. We note, furthermore, a contract between Charles I and Robert, Earl of Roxburgh, of 1634, a parchment of impressive length (88 inches) concerning the lordship of Kelso and a new enfeoffment to the earl and his heirs. The king binds himself to grant a charter under the Great Seal erecting the borough of Kelso (now a charming small town in Berwickshire) into a burgh of barony.

Three other documents also concern Charles I: the proclamation against Catholics in Scotland in 1629 (H 118), the letter to the Vice-Chancellor of Oxford, of 18 July 1642 (H 15), addressed to "the reverend Father in God, our right Trustee and well beloved John, Bishop of Worcester, Vice-Chancellor of our University of Oxon," and a contemporary copy of the treaty with Parliament of November 1648, consisting of 36 folia (H 47).

Since the letter of 1642 points to a relationship between the University of Oxford

and the Government, very different from that obtaining today, the beginning may be quoted in full: "Reverend Father in God, right Trustee and well beloved: Whereas We have received a most large and ample testimony of the affection of that our University, to us, by the free loane of a very considerable summe of money in a time of very imminent necessity; These are to will and to require you to give to that our University from us our Royall Thankes, and to assure them and every one of them that this testimony of their hearts towards us shall never depart out of our Royall memory, That both they shall be carefully repayd, and the money imployed only upon the defense of our Self, the Relegion and Lawes established in this our Kingdome...Given at our Court at Beverley, the Eighteenth day of July 1642."

Among the documents which, while bearing an RBD shelfmark, have been scantily described, we confine ourselves to singling out the following:

First, a late fifteenth – or early sixteenth – century manuscript (MS 177), mixing magic formulae and prayers, written in a quaint script, which requires a thorough examination. Secondly, a late copy of the letter of Sir Francis Walsingham and "Mr. Secretary Davison" to "Sir Amice Poulet" (that is Amias Paulet) "concerning the Queen of Scots together with Sir. A. Poulet's Answer to the sayd letter, dated February 2nd 1586." It is the letter in which Queen Elizabeth's ministers remarked that Paulet, the stern jailer of Mary Queen of Scots at Fotheringhay Castle, had not "in all this time...found out some way to shorten the (life of) that Queen, considering the great Perill she is hourly subject unto, so long as the sayd Queen shall live."

This is followed by Paulet's answer written immediately after the receipt of the request conveyed by the Queen's ministers, in which he categorically refuses to comply. "My goods, living and life are at her Majesty's disposition and I am ready to loose them this next morrow, if it shall so please her, acknowledging that I hold them as of her meer [*sic*] and most gracious favour, and do not desire to enjoy them without her Highness good liking: But God forbid that I should make soe foul a shipwreck of my Conscience, or leave soe great a blott on my poor Posterity, to shed Blood without Law or Warrant."

The ministers' letter was followed by the injunction that "it be committed to the Fire; such measure shall be likewise meted to your Answer, after it has been communicated to her Majesty for her satisfaction." This request regarding the letters was repeated twice, two days later by "Mr. Secretary Davison": "I pray you lett me hear what you have done with my letters, because they are not fitt to be kept, that I may satisfy her Majesty therein, who might otherwise take offence thereat."

As is manifest from the copies extant, these entreaties did not prevent this correspondence from being preserved. The RBD copy contains the following story: "This was found among Sir Amice Poulet's papers, now in the hands of one of his Descendants: it was given me by the Bishop of Ely, who had it from his Chaplain, Mr. George Harbin. June the 28th 1697. There is Secretary Davison's Apologie for himself; it seems to have taken wett, and is deficient at the beginning, some words being torne or woren out."

Apart from the documents concerning Charles I mentioned above, a lengthy Plea for Toleration of Recusants (H 117) and a petition of Recusants to Charles II (H 119) deserve to be noted among the papers belonging to the seventeenth century. The letter paints a sad picture of the petitioners' plight.

Among eighteenth-century documents special mention should be made of a manuscript (MS 77), begun in June 1730, signed by Philip Burton, pointing to a certain Pythagorean and Platonic tradition quite uncommon at the time: "Pythagoras, his Monad and Triad or Plato's universal Soul in motion or his harmonicall problem uniting the same and th'other together or his blending an *Ens* and the non Entity in unity with each other."

In spite of this fanciful title, based on the *Timaeus* and on Neoplatonic writings, the author is able to state his case in comparatively clear language: "Plato established this incontestable maxim that whatsoever is good is beautiful, and that goodness consists in proportionate measure, and from just proportion having beauty, health and virtue; as deformity, diseases and vices are produced by the contrary. First principles infused by

education sway very much our tender years either to virtue or vice but the Gods have given Men the liberty of choosing good and evil, and that all virtues and vicious actions at some certain time are purely voluntary (notwithstanding Aristotle's aligations [*sic*] against Plato); yet it assuredly was Plato's opinion (by examining him throughout) that God had given to Men all that light that is necessary to direct them to obey the law of nature which he has engraved within their hearts, and to inform them of certain fundamental truths which enlighten the universe like so many torches; but men have despised these helps."

The volume bears the bookplate of "Philip Burton, Exchequer Office, Lincolns Inn," known as an author of books on the Exchequer published in 1770 and later. Whether the author is identical with the 'Platonist' who began writing 40 years earlier or, more likely, a son of the same name, is unknown. At any rate, the manuscript contains several other pieces pointing to the versatility of the writer. They may well belong to different stages of his life. "A Comical History of the State and Empire of the Moon" is found in the same book as the author's reflexions about the science of perspective and his theory of space and time. A fuller description would require a separate article.

A very different mentality is apparent in an autograph letter by William Warburton dated April 25, 1763. Early in his literary career he had gained prestige because he was close to Alexander Pope; he soon became the fiercest controversalist of the age. He published many books on learned subjects directing his attacks against a wide variety of writers such as Bolingbroke, Wesley and David Hume. For hardly any other contemporary author does Hume, usually restrained and mild, in his autobiography show such dislike and contempt as for "Dr. Warburton's Railing" and for "the illiberal Petulance, Arrogance and Scurrility which distinguishes the Warburtonian School." In this letter, which Warburton writes as Bishop of Gloucester (1759 to 1779), he remains true to his reputation as a blustering churchman, denouncing "the present scandalous ferment in the County of Gloucester" and indirectly criticising his fellow bishops. At the same time he shows himself to be a caring husband.

A different spirit animates the letter (in the autograph letter collection) from John Wesley dated February 2, 1787, to W. Black of Halifax, Nova Scotia, in which he comments on the extraordinarily difficult conditions besetting a clergyman in Newfoundland.

There are two orders for payment and three letters from the period 1788 to 1816 by Henry Fuseli (1741-1825), (the well-known painter and engraver from Zurich, Johann Heinrich Fuessli), who as a young man had been brought to England, translated Winckelmann's *Painting and Sculptures of the Greeks* and became a friend of Sir Joshua Reynolds. The letters contain some technical details and the recommendation of an engraver. Though of little importance, they are mentioned since they are missing in the recent edition of the *Collected English Letters of Henry Fuseli*.[15]

Among the numerous unlisted indentures which found their way into the McGill collection, there are surprisingly some that bear the seals of Oxford Colleges: Magdalen, St. John's, Corpus Christi and the present writer's own college of Oriel.

Some of the literary documents – such as those relating to the Burney family and to Coleridge – are familar to scholars. Many others, however, remain to be collated and deserve to be better known.

Letters of Hannah More and her sisters, dating from 1772 to 1823, interleaved in a copy of *Florio, a Tale for Fine Gentlemen and Fine Ladies; and The Bas Bleu, a Conversation*, (London, 1786) (MS 125), and five others by Hannah More, found in a separate envelope, have not yet received sufficient attention. Martha More describes an evening with David Garrick in 1773; and an account of the circumstances surrounding Garrick's death is contained in Sarah's letter of February 1779.

Of special interest are the five big volumes containing *A Tour of Italy, Germany and Switzerland in 1796 and 1797* by James Forbes (MS 276) in which the well-educated author, who was related to the Earl of Grannard, and who had many years of service in India, gives a detailed description of his experiences during his travels from North Germany to Rome. Written "for the amusement of a beloved

daughter," it is full of invaluable information about German cities and prominent people he met, such as Klopstock at Flottbeck near Hamburg and Eschenburg in Brunswick. Of particular relevance is his account of Venice, since he was the last foreigner to visit it in the last days of the Republic before it surrendered to Napoleon's army. Through her marriage to the Comte de Montalembert, a French refugee in London, his "beloved daughter" became the mother of Charles Forbes de Tryon Comte de Montalembert, the well-known Catholic politician and author of *Les moines d'Occident*. No use has so far been made of *A Tour of Italy*.... A selection of those parts of the journal which are of general interest is being prepared for publication by the present writer.

Autograph letters by statesmen of the late eighteenth and early nineteenth century – the younger Pitt, Palmerston, Peel, and Lord John Russell – are, on the whole, mostly of personal rather than of political interest. In 1825 Palmerston writes as a London town planner, expressing his opinion on the approach to Craven street from Pall Mall; in 1835, he speaks about the improvement of commercial relations with Spain and Portugal and his desire to see the Carlists ousted.

In an album of letters (MS 24) addressed to him as Principal of the University of Glasgow (1823 to 1856), Dr. Duncan Macfarlane preserved, together with an early photograph of the University, a letter of Sir Robert Peel dated December 1836, in which as Lord Rector he asks whether he should appear in the academic dress of the University "of which I am a member...and I am only desirous of doing that which may be most regular and respectful."

More substantial are the papers of the Duke of Wellington from various periods of his life, bearing both on his career as military leader and as statesman. More impressive still is the important collection of several hundred manuscripts of Wellington's younger friend, Henry Hardinge (MS 180), who was to become Governor General of India and Wellington's successor as Commander-in-Chief of the armed forces. Both these collections are accessible through finding-aids in RBD.

Among the numerous nineteenth-century writers represented in the RBD collection suffice it to mention Walter Scott and Robert Southey (Bd 113, Bd Box VI). Many of these autographs have been published, such as a humorous letter by Thackeray to Dunlop, his American friend, and two letters by Tennyson. Three other letters by Tennyson which include a long detailed comment on his poetry will no doubt be included in later volumes of the edition of his correspondence by Cecil Y. Lang and Edgar F. Shannon, Jr.[16]

The series of letters by Thomas Carlyle in RBD is now published in *The Collected Letters of Thomas and Jane Welsh Carlyle*.[17] In a letter of 1831, he praises the *Westminster Review* for "one quality which ought to cover a multitude of errors, and is in these days among the rarest: namely a total uncompromising contempt of Cant and Dilettantism, in all shapes; a resolution to speak the Truth so far as it is seen into and can be spoken; a feeling that the Truth is infinitely precious and alone worthy of being spoken."[18]

There are also manuscripts and correspondence of Ruskin (MSS 57, 112, 180, 197), and a few letters by A.C. Swinburne to Watts of some interest, as well as two from Robert Louis Stevenson.

In a letter of 1882, shortly before his death, Dante Gabriel Rossetti explains the meaning of one of his poems: "The trifle of mine called 'Chimes' pretends to no more than it achieves, i.e., a rather suggestive jingle in the nature of a set of refrains." A succinct autobiographical sketch by his sister Christina Georgina is contained in one of the three letters in her hand.

Among the papers of later authors, those by W.B. Yeats merit special attention. They contain typescript copies of 22 letters from 1893 to 1916, dealing with Irish literature and addressed to the poet Catherine Tynan, whose daughter donated them to McGill. In one of the autograph letters in which the iniquity of writing for an English audience is discussed, Yeats states: "As long as the Irish public knows nothing of literature, Irish writers must be content to write for countries that know nothing of Ireland."

The collection also comprises correspondence from Kipling, his wife and his father to Lockwood de Forest and his wife Metha, two drawings by Kipling and the manuscript of *Traffics and Discoveries*, which contain 184 closely written pages in his small

handwriting (MS 201), "given to McGill University by Rudyard Kipling (Doctor of Laws), 1927."

The Church is represented by two closely argued statements by Pusey, one dealing with the question of whether God was known to the Patriarchs "by the full meaning of His Name," the other commenting on "a most uncomfortable letter" he had received from "the Bishop of E." reproaching him with a "grave irregularity" in exercising his functions. Among the eight notes of Cardinal Newman, one, of 1864, expresses great concern that his correspondent, a noble woman, had placed herself under the direction of Anglican clergymen. Another letter addressed to an officer of the Bodleian Library, H. Bliss, is evidence of his interest in certain aspects of mediaeval philosophy: as late as 1873, he asks which work the library possesses of "John Bacon, the Carmelite," that is Baconthorpe, the 'Doctor Resolutus.'

Yet far more important than all the foregoing is the collection of documents concerning David Hume:

Shortly after my first arrival in Montreal, in December 1946, I noticed in a cupboard of the Faculty Club of McGill nine volumes in a neat eighteenth-century binding, each with Hume's bookplate, containing the Olivetus edition of Cicero's works (Paris 1740-1741). Any student of Hume's ethics and of his approach to religion is well aware of the attraction which Cicero had for the philosopher from his early days. In a letter to Francis Hutcheson, the philosopher, written before the publication of Book III (*Of Morals*) of *A Treatise of Human Nature*, he describes himself as "great admirer of Cicero." For an important doctrine of the *Treatise*, making the virtue of an action dependent on the goodness or badness of the motive, he adduces the authority of *De finibus bonorum et malorum*; and of *De officiis* he states, "I had indeed the Book in my Eye in all my Reasonings." His thorough knowledge of Cicero's orations is brought out in a long letter to Henry Home, Lord Kames.

How much Hume liked his "Olivet's Cicero"[19] (in the index of the Oxford edition of *The Letters of David Hume* wrongly described as "Olivet's Virgil"), now at McGill, may be gathered from the fact that he had sent one volume to his publisher William Strahan, asking him to take it as a model for the new edition of his *Essays and Treatises*, to serve as a forerunnner to a similar edition of his *History*. He adds "Let us see a Sample of your English Press: I do not believe you can make such a Book; and I give you a Defiance. Pray return the Book carefully, after you have carefully survey'd it." In a following letter, he inquires whether he may pretend "to rival Cicero in Garb and Accoutrements." Hume's marks in the volumes containing the philosophical writings show which parts were of particular interest to him. They also indicate that he continued to read Cicero after the completion of the *Treatise*.

The unexpected find gave rise to the project, favourably received by the authorities in charge of the Library, of forming a collection of original source material which would provide the basis for an intensive study of Hume's life and thought. Thanks to the helpful cooperation of Mr. Richard Pennington, University Librarian until 1965, a collection was built up which, in many respects, is surpassed only by those in Edinburgh and London. It contains no fewer than 50 letters in Hume's own hand, more than those possessed by any other single library in North America; some have been published in our edition of *New Letters of David Hume*;[20] others will appear in the edition now being prepared.

Of particular importance are the 37 letters from Hume to the Comtesse de Boufflers, the lady who, from 1761 until his death in 1776, occupied a special place in his affections (Figure 4). Her beauty and wit, combined with her status as mistress of the King's cousin, the Prince de Conti, as whose official hostess she acted at his Paris residence, the Temple, gave her a prominent place in Paris society. She was admired by Rousseau and other writers. Horace Walpole sums her up with his usual malice: "She is two women, the upper and the lower. I need not tell you that the lower is *galante* and still has pretensions. The upper is very sensible, too, and has a measured eloquence that is just and pleasing – but all is spoiled by unrelaxed attention to applause."[21] The self-reflection attributed to her and reported by Sainte-Beuve is more concise: "Je veux rendre à la vertu par mes paroles ce que je lui ôte par mes actions."[22]

Wherever she went, she attracted attention. At the time Hume frequented her in Paris, she

was known as "l'îdôle du Temple." Later in life, as a French historian delicately puts it, "quand la passion de l'esprit succéda chez elle aux passions d'un âge plus tendre," she was also called "la Minerve savante."

She carefully kept Hume's letters, together with the eleven which she received from Rousseau – among which was one of his most dramatic – and two from George Keith, the tenth Earl Marishal of Scotland (Governor of Neuchâtel under Frederic the Great), who was Hume's friend and Rousseau's patron. Now bound in dark blue morocco, the volume (MS 4) contains, moreover, copies in Madame de Boufflers' own hand of two letters she sent in July 1766, one to Hume and one to Rousseau, in which she expressed her feelings on the quarrel between her two friends. (These copies were obviously made and kept due to the particular importance of the matter.)

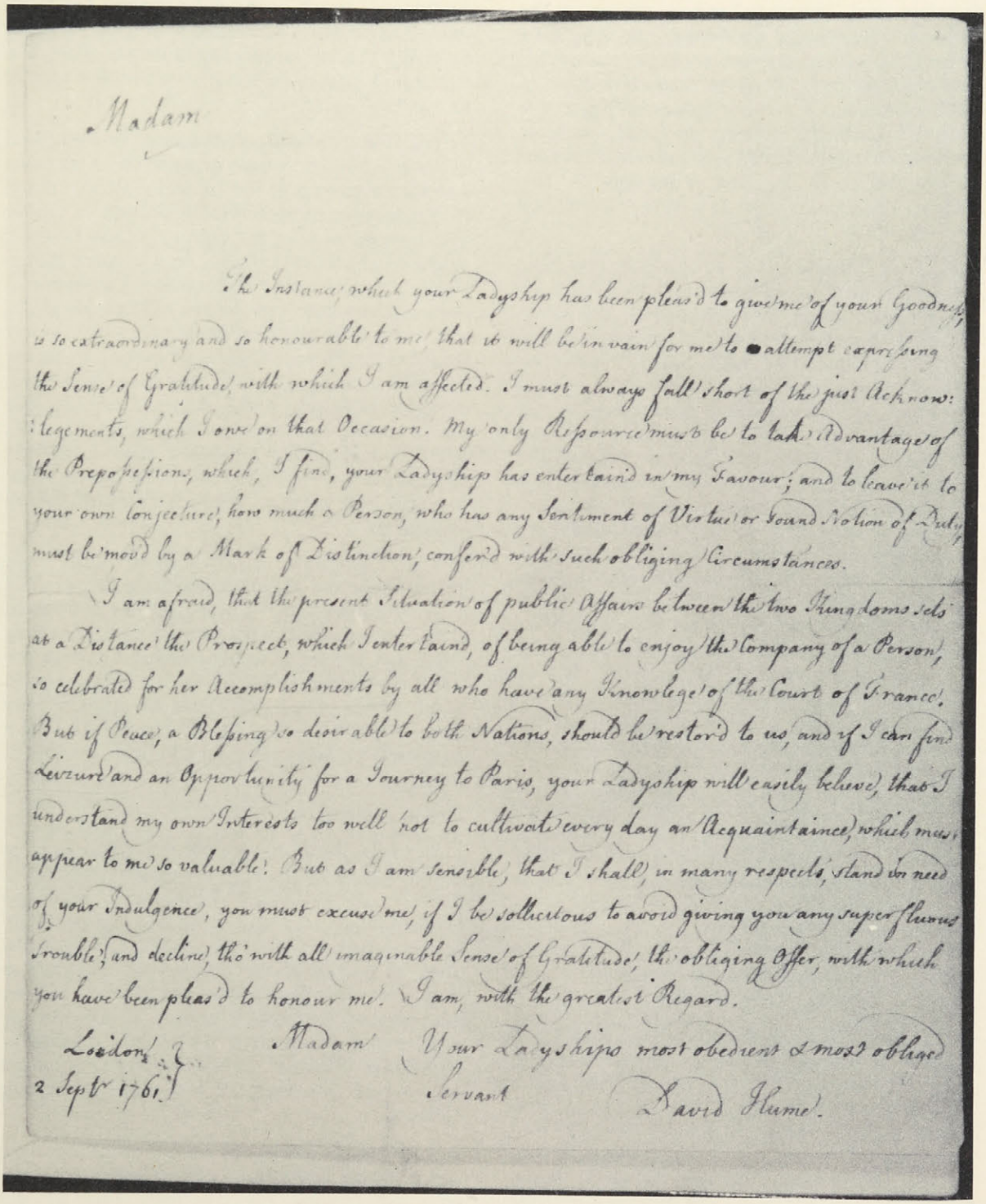
How to account for the fact that so many precious documents written by different persons are united in one and the same volume, together with five letters from Hume to the Marquise de Barbentane? The question may be answered with certainty by tracing the history of the book. It is linked with the sad fate, to which Hume scholars have paid no attention, which befell Madame de Boufflers in her later life. During the Revolution, she retired with her daughter-in-law to a house in Auteuil. The Duchess of Lauzun, the daughter of a close friend, became a victim of the Terror. Madame de Boufflers and her daughter-in-law were imprisoned and judged by the revolutionary tribunal. Thanks to the intervention of a devoted friend who was acquainted with the powerful Fouquier-Tinville, they escaped the Guillotine and were finally set free in October 1794. Madame de Boufflers survived until 1800 in severely reduced circumstances.

The letters from Hume, Rousseau (Figure 5) and Lord Keith which she had kept came into the hands of André-Daniel Laffon de Ladebat. This financial expert, politician and publicist (1746-1829), author of a *Discours sur la nécessité et les moyens de détruire l'esclavage dans les colonies*,[23] survived the Revolution but, as a strong critic of the Directoire, was deported to Guyana. At the end of the century, he returned to France. As he had done before, he collected documents of historical and literary interest at public auctions. When the Hume and Rousseau papers came into his possession, he decided to publish them. At first, he meant to do this in Paris, but then preferred to take them to London where he went in 1815 to retrieve what remained of the money which he had deposited there after the Peace of Amiens. In the end, he seems to have found it more profitable to sell the precious volume, together with some other contemporary letters relating to Hume and his friends. They were all published in London a few years later, with many changes in spelling and punctuation, by an unnamed editor who had acquired them, under the title of *Private Correspondence with Several Distinguished Persons between the Years 1761 and 1776 now First Published from the Originals*.[24]

The text was reproduced without changes in J.Y.T. Greig's edition of *Hume's Letters*. The McGill manuscript, in the edition now being prepared for publication, will, for the first time, make Hume's original text available. Once these letters at McGill are published, they, together with the 39 letters from Madame de Boufflers to Hume which are preserved among the manuscripts of the Royal Society of Edinburgh (now deposited at the National Library of Scotland), will make it possible to follow step by step the development of a relationship which clearly was of great importance to both correspondents.

In one of these letters, for instance, written five months after he left France, Hume expresses the hope that he might return and join her on a voyage which would lead them to Italy and Greece. "What do you think of the project? The idea is not altogether extravagant. Might we not settle in some Greek island, and breathe the air of Homer, or Sappho, or Anacreon...." Whether Hume really intended to do so, may well be doubted. In any case, they never saw each other again.

In the succeeding years, letters became far less frequent. Was this merely due, as has been generally assumed, to a cooling of affections resulting from years of separation without the likelihood of meeting again? New documents, in the form of personal letters, reveal that Madame de Boufflers' attention was directed towards a new correspondent, the King of Sweden. All the more striking is the last letter which Hume, knowing that his death was imminent – he died



Madam

The Instance which your Ladyship has been pleas'd to give me of your Goodness is so extraordinary and so honourable to me, that it will be in vain for me to attempt expressing the Sense of Gratitude, with which I am affected. I must always fall short of the just Acknowledgements, which I owe on that Occasion. My only Resource must be to take Advantage of the Prepossessions, which, I find, your Ladyship has entertain'd in my Favour; and to leave it to your own Conjecture, how much a Person, who has any Sentiment of Virtue or sound Notion of Duty, must be mov'd by a Mark of Distinction, conferr'd with such obliging Circumstances.

I am afraid, that the present Situation of public Affairs between the two Kingdoms sets at a Distance the Prospect, which I entertain, of being able to enjoy the Company of a Person, so celebrated for her Accomplishments by all who have any Knowlege of the Court of France. But if Peace, a Blessing so desirable to both Nations, should be restor'd to us, and if I can find Leizure and an Opportunity for a Journey to Paris, your Ladyship will easily believe, that I understand my own Interests too well not to cultivate every day an Acquaintance, which must appear to me so valuable. But as I am sensible, that I shall, in many respects, stand in need of your Indulgence, you must excuse me, if I be solicitous to avoid giving you any superfluous Trouble, and decline, tho' with all imaginable Sense of Gratitude, the obliging Offer, with which you have been pleas'd to honour me. I am, with the greatest Regard,

Madam Your Ladyships most obedient & most obliged Servant David Hume.

London
2 Sept[r] 1761.

Figure 4. Letter of David Hume to Mme. de Boufflers, 2 September 1761 (MS 4).

five days later – wrote to her to comment on the death of the Prince de Conti, her long-time lover. "Tho' I am certainly within a few weeks, dear Madam, and perhaps within a few days, of my own death, I could not forbear being struck with the death of the Prince de Conti – so great a loss in every particular. My reflection carried me immediately to your situation in this melancholy incident. What a difference to you in your whole plan of life!..."[25]

"Surely," in the words of Sainte-Beuve, "the woman who inspired a dying sage with such supreme sentiments of concern and friendship was not an ordinary soul, and this document alone that links her with one of the most beautiful deaths that philosophy offers us would suffice to prevent her name from dying."[26] For some unknown reason, the letter was not included in de Ladebat's collection. The text in Greig's edition of *The Letters of David Hume*, is based on earlier printed sources and disregards the facsimile available in the Lennox collection of the New York Public Library. Detached from the other letters, the original passed through the hands of a succession of private collectors. It was an unexpected thrill to find it in Harvard University Library which in 1972 had acquired it (b MS Am 1899(93)), together with an unpublished letter. In Madame de Boufflers' own hand, it bears after the date on top of the address, the inscription "pour mannoncer [*sic*] sa mort prochaine."

After having served the editor of *Private Correspondence*, the Ladebat volume was in due course acquired by one of the most prominent British autograph collectors, Alfred Morrison, in whose sumptuous catalogue it is described. After the sale of his library, it came into the possession of an American collector, Lucius Wilmerding. Finally, when his collection was sold, it was possible to secure the volume for McGill.

As a result of a systematic search, I found two additional volumes in the stacks of the McGill Library: Hume's copy of Theophrast's *Characters* (Lyon 1612) and his Anacreon together with some poems by Sappho and Theocritus (London 1695). The latter may well be the book which he had in mind when suggesting to Madame de Boufflers in the letter quoted above that they should "settle in some Greek island and breathe the air of Homer, Sappho, and Anacreon, in tranquility and great opulence." In a New York bookshop I noticed two other volumes belonging to Hume, the Abbé de Mably's *Observations sur l'histoire de France* (Geneva 1765); they were acquired for McGill in 1951.

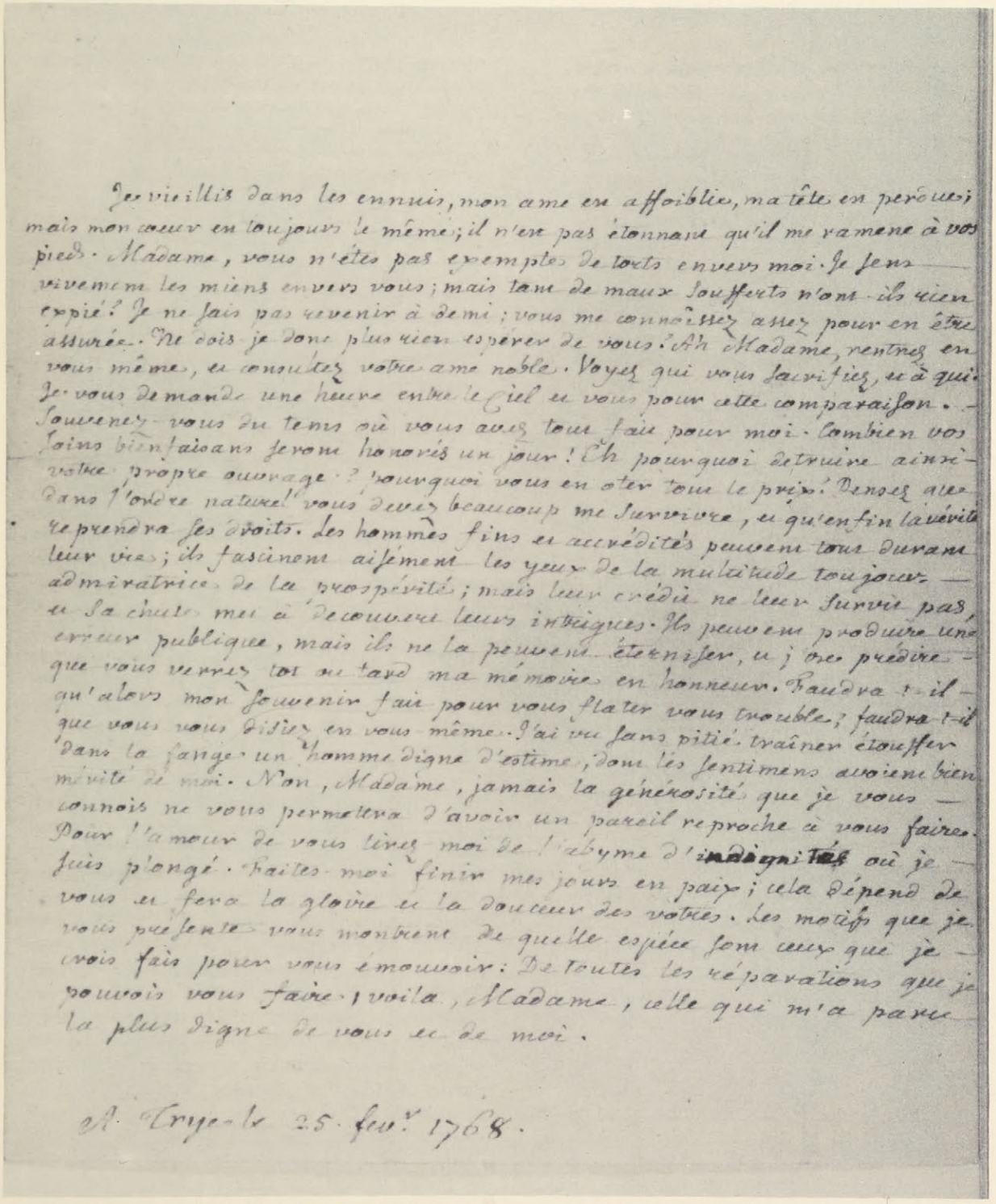
The Hume collection remains to be described in detail. It has lately been enriched by a precious volume, acquired at the initiative of Professor David Norton, which once belonged to Hume and formed part of the library of his favorite nephew, the lawyer David Hume (later Baron Hume). It contains a collection of pamphlets, occasioned by the performance in Edinburgh, in the year 1757, of *Douglas*, the play by Hume's friend, John Home. Several of these pamphlets contain strong attacks by the hard-line presbyterian clergy and its sympathisers against David Hume, branded as "the Infidel." "...We see, by the growth of Infidelity, the fatal effects of thus permitting David and John Home to go on after the manner they do without being censured."

The autograph collection of RBD also contains a letter of four pages described as "not by the philosopher." It is in fact in the hand of Hume's nephew, David, written by him in May 1809 to Lord Melville, expressing his wish for a seat on the bench of the Court of Exchequer, "and if that object could not be attained, my desire to exchange my Sheriffship (which I have now held for 26 years) for some more beneficial situation."

(IV) Canada

No systematic survey of the collection of Canadiana has yet been attempted. It is to be hoped that sufficient means may soon be obtained to provide a detailed description of the material preserved in the RBD, the McCord Museum and other McGill libraries and thus to make this important source of Canadian history generally available. It is known so far only by a brief and insufficient list in the *Canadian Historical Review*,[27] and information contained in *A Guide to Archival Resources at McGill University*.

Particularly numerous are the administrative and personal papers concerning French Canada; two documents, for example, one of the seventeenth century, confirming a grant of land at Trois-Rivières by the Compagnie de la Nouvelle France to François de Champfleur, the



Je vieillis dans les ennuis, mon ame en affoiblie, ma tête en perd ues; mais mon cœur en toujours le même; il n'est pas étonnant qu'il me ramene à vos pieds. Madame, vous n'êtes pas exemptes de torts envers moi. Je sens vivement les miens envers vous; mais tant de maux souffertes n'ont-ils rien expié? Je ne fais pas revenir à demi; vous me connaissez assez pour en être assurée. Ne dois je donc plus rien espérer de vous? Ah Madame, rentrez en vous même, et consultez votre ame noble. Voyez qui vous sacrifiez, et à qui. Je vous demande une heure entre le Ciel et vous pour cette comparaison. — Souvenez vous du tems où vous avez tout fait pour moi. Combien vos soins bienfaisans seront honorés un jour! Eh pourquoi détruire ainsi votre propre ouvrage? pourquoi vous en ôter tout le prix? Pensez que dans l'ordre naturel vous devez beaucoup me survivre, et qu'enfin la vérité reprendra ses droits. Les hommes fins et accrédités peuvent tous durant leur vies; ils fascinent aisément les yeux de la multitude toujours admiratrice de la prospérité; mais leur crédit ne leur survit pas, et sa chute met à découvert leurs intrigues. Ils peuvent produire une erreur publique, mais ils ne la peuvent éternizer, et j'ose prédire que vous verrez tôt ou tard ma mémoire en honneur. Faudra-t-il qu'alors mon souvenir fait pour vous flater vous trouble; faudra-t-il que vous vous disiez en vous même: J'ai vu sans pitié traîner étouffer dans la fange un homme digne d'estime, dont les sentimens avoient bien mérité de moi. Non, Madame, jamais la générosité que je vous connois ne vous permettra d'avoir un pareil reproche à vous faire. Pour l'amour de vous tirez moi de l'abyme d'indignités où je suis plongé. Faites moi finir mes jours en paix; cela dépend de vous et fera la gloire et la douceur des vôtres. Les motifs que je vous présente vous montrent de quelle espèce sont ceux que je crois fait pour vous émouvoir: De toutes les réparations que je pourois vous faire, voila, Madame, celle qui m'a paru la plus digne de vous et de moi.

A Trye-le 25. fevr. 1768.

Figure 5. Letter of Jean-Jacques Rousseau to Mme. de Boufflers, 25 février 1768. (MS 4).

other, a copy of a grant of land to Jean Godefroid natif Lanctot, in 1633.

Of special interest are the papers relating to individual families such as Rigaud de Vaudreuil, Lefebvre de Bellefeuille, Lemoyne de Longeuil, Lambert Dumont, Boucher de Niverville, Hertel, de Saint-Ours, Le Ber de Senneville and, by far the most numerous, those of the Chartier de Lotbinière family (which include a copy of a letter from Michel, Marquis de Lotbinière, to Benjamin Franklin), as well as those mentioned in the preceeding paragraph. These papers and many others containing grants of land and legal documents from the first part of the seventeenth century onward, formed part of the collection of Archibald Chaussegros de Léry Macdonald, which was acquired by McGill in 1922; it now bears the signature MS 439. A handwritten finding-aid completed in 1987 by Alexander Wright and Dr. Richard Virr provides detailed information.

A significant piece illustrating the arbitrary nature of punishment under the Ancien Régime is a letter (H43) dated 15 September 1729, signed at Versailles by the comte de Maurepas (then in charge of the naval establishment), condemning Captain Jean Baptiste Paul, accused of barratry (gross neglect of his duties). In the absence of witnesses and sufficient proof, no trial was held. Instead, "for the public good" he was – without legal procedure – condemned to being deported. The punishment consisted of his being sent to Canada, forced to serve as a simple sailor on boats plying between Quebec and Montreal, not being permitted ever to return.

A thorough listing is needed of the many military papers in the McCord Museum of Canadian History and in RBD concerning the British conquest of Canada and the War of the American Revolution. To these should be added, on the French side, a letter (in the Lawrence Lande Collection of Canadiana), written in 1759 by the Marquis de Montcalm from his headquarter at Beauport, less than two months before his death, to an unnamed addressee in whom he obviously had confidence (and whom Lande assumes to be Antoine de Bougainville, his aide-de-camp), criticizing the performance of his senior officers, including de Ramezay, about whom unflattering remarks are made: "M. de Ramezay ne donne aucun ordre et ne décide rien. ...Je pars dans le moment leur dire que ce sont des fous, et ils en pensent peut-être autant de moi..."

Montcalm's signature appears, too, together with those of many other prominent personalities of the French colony, on two marriage contracts in the Lande Collection, each dated 1759, one of which is between a French officer, stationed at Montreal, and the daughter of an officer's family in the same town.[28]

On the British side, there are for instance the papers of General Wolfe and of his successor as commander, James Murray, the first military governor of Quebec and subsequently the first civil governor of the newly conquered territory. (Two of Murray's brothers, Lord Elibank and Alexander Murray, were correspondents of David Hume; James Murray was acquainted with him.)

For the later period there is, also in the McCord Museum, the correspondence of Friedrich Adolf Riedesel, Baron Eisenbach, who arrived in Quebec in 1776 as commander of the German corps of over 4200 men, sent by the Duke of Brunswick-Wolfenbüttel. Of no less interest are the documents in the McCord Museum regarding the War of 1812-1815 between the United States and the joint forces of Britain and the Canadian militia. Moreover, numerous papers are found there, illustrating later periods of political, military and intellectual history.

To mention only one example of a document (in RBD, unnumbered) bearing on civil administration, which has escaped notice in any of the existing lists, a writ, "allowed on 30 July 1800" begins as follows: "George the Third by the grace of God of Great Britain, France and Ireland, King, Defender of the faith, and so forth. To the Keepers of our Peace, and to our Justices assigned to hear and determine divers felonies, trespasses and other mis-demeanors done and committed within our District of Montreal, and to every of them, Greeting." It refers to a document concerning "the City and Parish of Montreal" entitled "Procès verbal du chemin de la division de St. Michel." Witnessed by James Monk, "our Chief Justice of our said Court of Kings Bench, at Montreal," it is signed by James McGill, the future founding father of the University, in his capacity as Justice of the Peace, and it bears the signature of several prominent Montreal citizens, of both French and

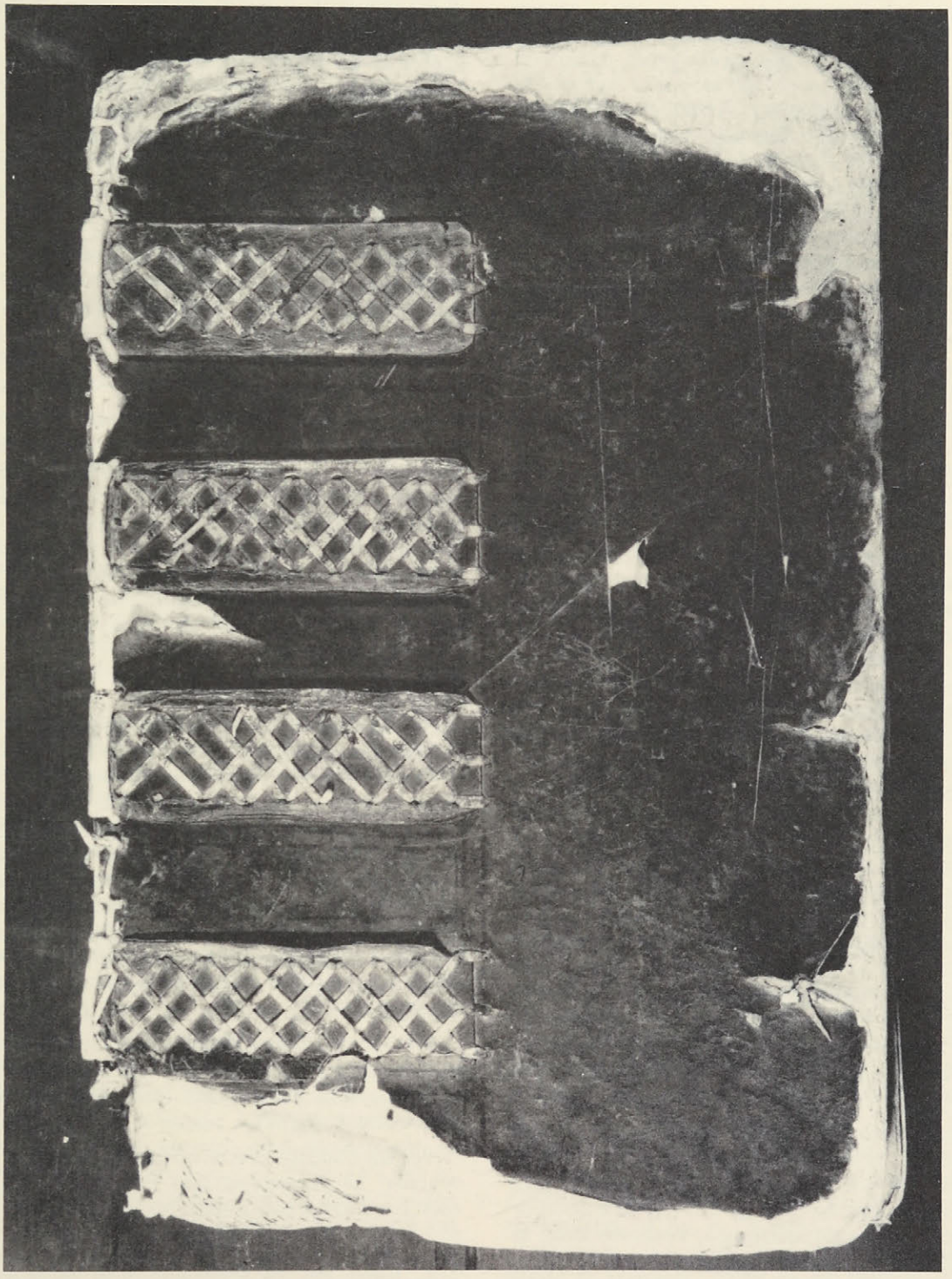


Figure 6. Pierre-Luc Du Jaunay, "*Dictionarium Gallico-Outawaki*," 1740-48 (MS 281).

British origin, among whom are the Hon. Pierre Louis Panet and two women, Soeur Marie Noreau and Soeur Benoite Ceras.

A document of particular significance for the relations between French missionaries and Indians in the Upper Lake districts is the *"Dictionarium Gallico-Outawaki"* (MS 281), a huge volume of 581 pages in large format (Figure 6). This dictionary of the language of the Ottawa Indians was compiled by the Jesuit missionary Pierre-Luc Du Jaunay who had lived in their midst since 1735. He started work on his dictionary in 1740 and completed it eight years later. It is characterized by the fact that for each French word he provides a lengthy list of Indian equivalents according to the context of its use and that he pays special attention to metaphorical meaning, e.g., "Il a de beaux yeux" – "il a l'air ouvert et riant." But this is followed by "Je luy arrache les yeux."

Before sailing for Canada (in 1734), the author had studied theology at the Royal College of La Flèche at which Descartes had received his early training. His high intellectual standing is evident. At the end of his impressive work the author states: "I have completed a monument more fragile than glass and lighter than a flying feather and flax." At the same time he appeals to the reader to add corrections ("O tu qui legis haec, corrige, corrige"). It is no surprise to read that, after the conquest, the British Commander writes that the priest was "a good man and had a great deal to say with the Savages, who will believe everything he tells them." In fact, by its careful description of the language, the dictionary provides information concerning the thought and the life of the Indian tribe. By its thoroughness and its regard for the different contexts in which words are used, it has few equals in eighteenth-century lexicography. It is an important source for the student of American Indian civilisation.

Mention should also be made of the papers regarding the history of the first Jewish family established in Canada, those concerning Aaron Hart who came to Canada in 1760 as Purveyor to the British army, settling at Trois-Rivières, as well as those of his descendants down to 1933. The collection, in the McCord Museum and in the University Archives, forms a noteworthy supplement to the papers preserved in the Archives du Séminaire de Trois-Rivières.

While there are many Canadian literary figures represented in the McGill collections, suffice it to single out the numerous literary manuscripts and letters of Stephen Leacock which are preserved in RBD. Nor should it be forgotten that among the papers of prominent contemporary authors, RBD preserves some of the correspondence and manuscripts by Hugh McLennan, until recently associated with McGill.

Mention of the rich material bearing on such items as the early fur trade, the development of retail trade in Montreal since 1846 (papers of the Morgan family) and of the history of the Montreal Stock Exchange is made in *A Guide to Archival Resources at McGill University*.

Special attention is due to the vast collection of documents by William Douw Lighthall (1857-1954) covering his manifold activities as author and founder of various municipal and national organisations. The detailed inventory prepared by Dr. Richard Virr will at last make it possible to exploit this important source of local and national history during the second half of the nineteenth and the first half of the twentieth century.

(V) History of Science

As founder of the Canadian Society for the History and Philosophy of Science, the author of this brief survey would like to draw attention in a separate section to some interesting documents found in McGill collections. In so doing, medical manuscripts which are fully described in the Osler catalogue have been excluded. Our knowledge of the transmission of Greek medical science will undoubtedly be enriched when the Oriental translations of, and references to Galen and other Greek authors are made accessible.

Mediaeval science (other than astrology and alchemy) is represented by the astronomical treatise, de Ricci 134 (see above Latin Manuscripts, p. 72).

For his contribution to optics, in particular his account of refraction and the properties of concave and convex lenses, his inquiries into the mechanics of water and steam, his significant improvement to the camera obscura by adding a convex lens to the aperture, his efforts directed towards the invention of the telescope, his stress on the necessity of experimentation and his refinement of experimental techniques, as well

as his refutation of the belief in demons and in witches, and his role in the founding of the *Accademia dei Segreti* in Naples (designed to reveal the secrets of nature), Giambattista Porta (1535-1614) has an assured place in the history of scientific thought. At the same time he is, apart from many bizarre speculations, known for his attempt to resuscitate the age-old doctrine of physiognomy and to establish this doctrine of the correspondence between the visible form of the body and the internal character of man on a sound 'scientific' basis. In addition to many of his books, the Osler Library possesses the original Latin manuscript (MS 7618), neatly written in his own hand, of his work on chiromancy which he considered to be an especially important part of physiognomy. It is entitled *De ea naturalis fisiognomoniae parte quae ad manuum lineas spectat* ("About that part of the natural physiognomy which concerns the lines of the hands"). Based on the observations he made for many years in the prisons of Naples and elsewhere, it contains a great number of drawings of hands, feet, claws, neatly executed by Porta. These drawings are lacking in the Italian translation, printed long after his death (Naples, 1677), by which this book has so far been known. After severely attacking contemporary writers on the subject, whom he labelled pseudo-scientific imposters, Porta prefaces the work with a chapter on "the dignity of the hands."

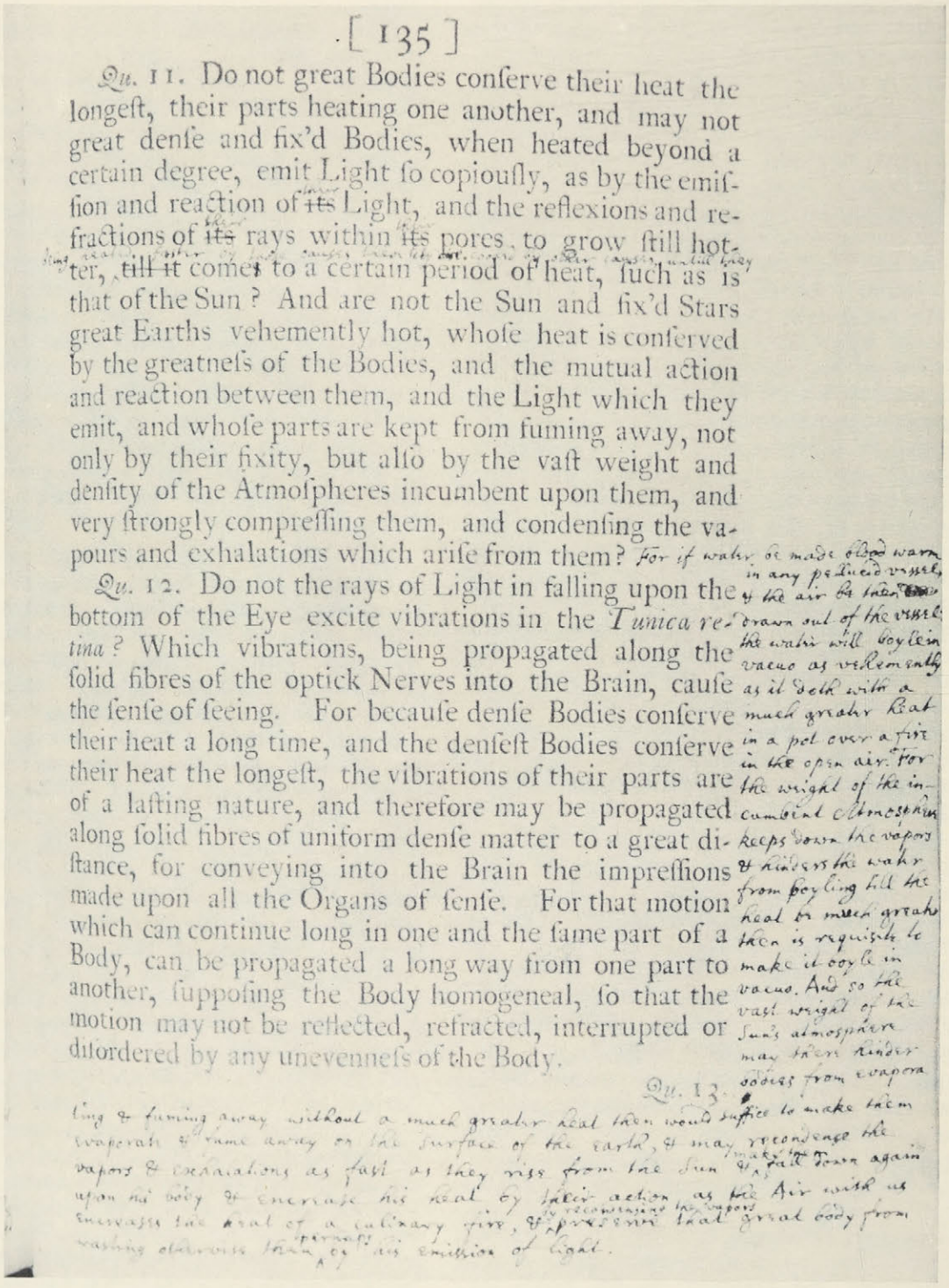
The extensive correspondence of Georgio Baglivi, the anatomist and physician of Pope Innocent XII, is preserved in the Osler Library. It contains letters to and from prominent Italian natural scientists of the latter part of the seventeenth century, such as Malpighi, Fardella, Redi, and Lorenzo Belloni. It has recently been published as *The Baglivi Correspondence From the Library of Sir William Osler*.[29]

Isaac Newton's copy of his *Opticks: Or, a Treatise of the Reflexions, Refractions, Inflexions and Colours of Light. Also Two Treatises of the Species and Magnitude of Curvilinear Figures*, London, 1704, (MS 46) is, together with his *Tractatus de Quadratura Curvarum*, preserved in RBD. The work on optics contains a substantial number of corrections and additions in his hand, for instance a long addition to the Second Book, Part IV, p.135 (Figure 7). The changes were incorporated by him in the later editions of his work.

The botanical field-notebook in Latin of Herman Boerhave, the famous Leyden physician, contains his observations of plants from about 1711 to 1726. The entries in his characteristically neat hand are systematically arranged with precise indication of dates and locations – whether in the dunes of Katwijk or "in sylva Hagana" or in his own garden. This notebook constitutes a summary of the flora of the Netherlands of his time. The volume (MS 229) has been acquired by the Osler Library, which also possesses (in MS BO 1118) copies of many of his letters to Italian scientists (e.g. to Morgagni), some of which are copied from the originals, the transcript being attested in 1745 by a notary of Padua. The same manuscript contains, at the beginning, an autograph letter of 1735, with Boerhave's well-known seal "Simplex veri sigillum," the device adopted by Wittgenstein.

Several works by Sir Joseph Banks are found in the Blacker-Wood Library: the original manuscripts, now published, of his field-notes in Latin to his *Voyage to Newfoundland* (1766), the diary of the first half of his *Voyage to Iceland*, 1772, and the transcript, made about 1820, of the *Endeavour Journal* (1768-1771), with botanical and zoological comments. Among the 900 paintings of North American wildlife in Blacker-Wood's Taylor-White collection, there are several based on Banks' specimens.

In the RBD autograph collection, William Buckland, the founder of the Oxford School of Geology, and author of *Reliquiae diluvianae or observations on the organic remains attesting the action of a universal deluge*, known for his attempts to confirm the Biblical account of the age of the world in the light of geological and palaeontological evidence, is represented by three letters written from Oxford between 1824 and 1836, and a "Notice to Geologists" of October 1841. Joined to these are four letters by his son Francis, the ichthyologist, dating from the period 1858 to 1874, the first of which contains a lengthy humorous account of his examination of a stuffed "Mermaid" which he recognised to be a "merman," "for it is a gentleman," found in a back parlour of a public house in London, "such as we read in Oliver Twist or Jack Shepherd." He knows where the corresponding mermaid is and will look her up. Two further letters by William Buckland are



[135]

Qu. 11. Do not great Bodies conſerve their heat the longeſt, their parts heating one another, and may not great denſe and fix'd Bodies, when heated beyond a certain degree, emit Light ſo copiouſly, as by the emiſſion and reaction of ~~its~~ Light, and the reflexions and refractions of ~~its~~ rays within ~~its~~ pores, to grow ſtill hotter, ~~till it~~ comes to a certain period of heat, ſuch as is that of the Sun? And are not the Sun and fix'd Stars great Earths vehemently hot, whoſe heat is conſerved by the greatneſs of the Bodies, and the mutual action and reaction between them, and the Light which they emit, and whoſe parts are kept from fuming away, not only by their fixity, but alſo by the vaſt weight and denſity of the Atmoſpheres incumbent upon them, and very ſtrongly compreſſing them, and condenſing the vapours and exhalations which ariſe from them? *for if wahr be made blod warm in any poluced vessel, & the air be taken drawn out of the vessel the wahr will boyle in vacuo as vehemently as it doth with a much greahr heat in a pot over a fire in the open air. for the wright of the incumbent Atmosphere keeps down the vapors & hinders the wahr from boyling till the heat be much greahr than is requisite to make it boyle in vacuo. And so the vast wright of the Sun's atmosphere may help hinder bodies from evaporating & fuming away without a much greahr heat than would suffice to make them evaporate & fume away on the surface of the earth, & may recondense the vapors & exhalations as fast as they rise from the Sun & make them fall down again upon his body & encrease his heat by their action as the Air with us encreases the heat of a culinary fire, & preserve that great body from cooling & perhaps* by the emission of Light.

Qu. 12. Do not the rays of Light in falling upon the bottom of the Eye excite vibrations in the *Tunica retina*? Which vibrations, being propagated along the ſolid fibres of the optick Nerves into the Brain, cauſe the ſenſe of ſeeing. For becauſe denſe Bodies conſerve their heat a long time, and the denſeſt Bodies conſerve their heat the longeſt, the vibrations of their parts are of a laſting nature, and therefore may be propagated along ſolid fibres of uniform denſe matter to a great diſtance, for conveying into the Brain the impreſſions made upon all the Organs of ſenſe. For that motion which can continue long in one and the ſame part of a Body, can be propagated a long way from one part to another, ſuppoſing the Body homogeneal, ſo that the motion may not be reflected, refracted, interrupted or diſordered by any unevenneſs of the Body.

Qu. 13.

Figure 7. Isaac Newton's copy of his *Opticks*, 1704, with his additions (MS 46).

found interleaved in the Babbage book described in the next paragraph.

Of particular interest for the history of science in the nineteenth century is the copy of Charles Babbage's *Passages from the Life of a Philosopher*, London 1864 (MS 173). This well-known autobiography is remarkable in many ways for the idiosyncratic reflexions of the author preceded by two devices, one from Byron's *Don Juan*: "I am a philosopher. Confound them all – Birds, beasts and men; but no, not womankind." The second from *"Autobiography of an Oyster" deciphered by the aid of photography in the shell of a philosopher of that race recently scolloped.*

The book is no less remarkable for the "impression from a woodcut of a small portion of Mr. Babbage's Difference Engine" – his first computing machine "commenced in 1823" and part of the *Exhibition 1862*. Yet the particular value of the McGill copy consists in the wealth of handwritten letters from leading scientists of the nineteenth century, which the owner, Frederick Hendriks, a statistician and proponent of an international currency, had bound in 1893 between the leaves of the volume. Among them, there are three letters from Babbage, and one each from John Dalton, John Frederick William Herschel and Hans Christian Oersted. There are, moreover, two letters from Michel Faraday (one of them to Herschel, Figure 8) and no fewer than eleven to Faraday (one from Babbage and two from Mark Isambard Brunel). As I learned from Dr. Frank Jones, the scholar in charge of the edition of Faraday's correspondence, planned by the *Royal Institution of Great Britain*, the existence of these McGill letters was hitherto unknown. To do justice to the riches of its contents, it will be necessary to devote a separate article to this copy of Babbage's work.

About 3000 folders of correspondence of naturalists and 300 manuscripts ranging from the middle of the nineteenth to the early twentieth century are preserved in the Blacker-Wood Library. It is particularly rich in material concerning ornithology. Of special interest is the collection of imprints and photographs of manuscripts concerning falconry. It also contains the beautiful *Feather Book*,[30] by Dionisio Minaggio, gardener to the Governor of Milan, which consists of 156 pictures of which 112 are of birds, while the others represent musicians, hunters and figures familiar from the Commedia dell'Arte. Each picture has been made from bird feathers pasted on heavy paper mounted on the pages of a folio volume. Since it preserves some of the oldest bird-skins known, it is an ornithological document of great importance.

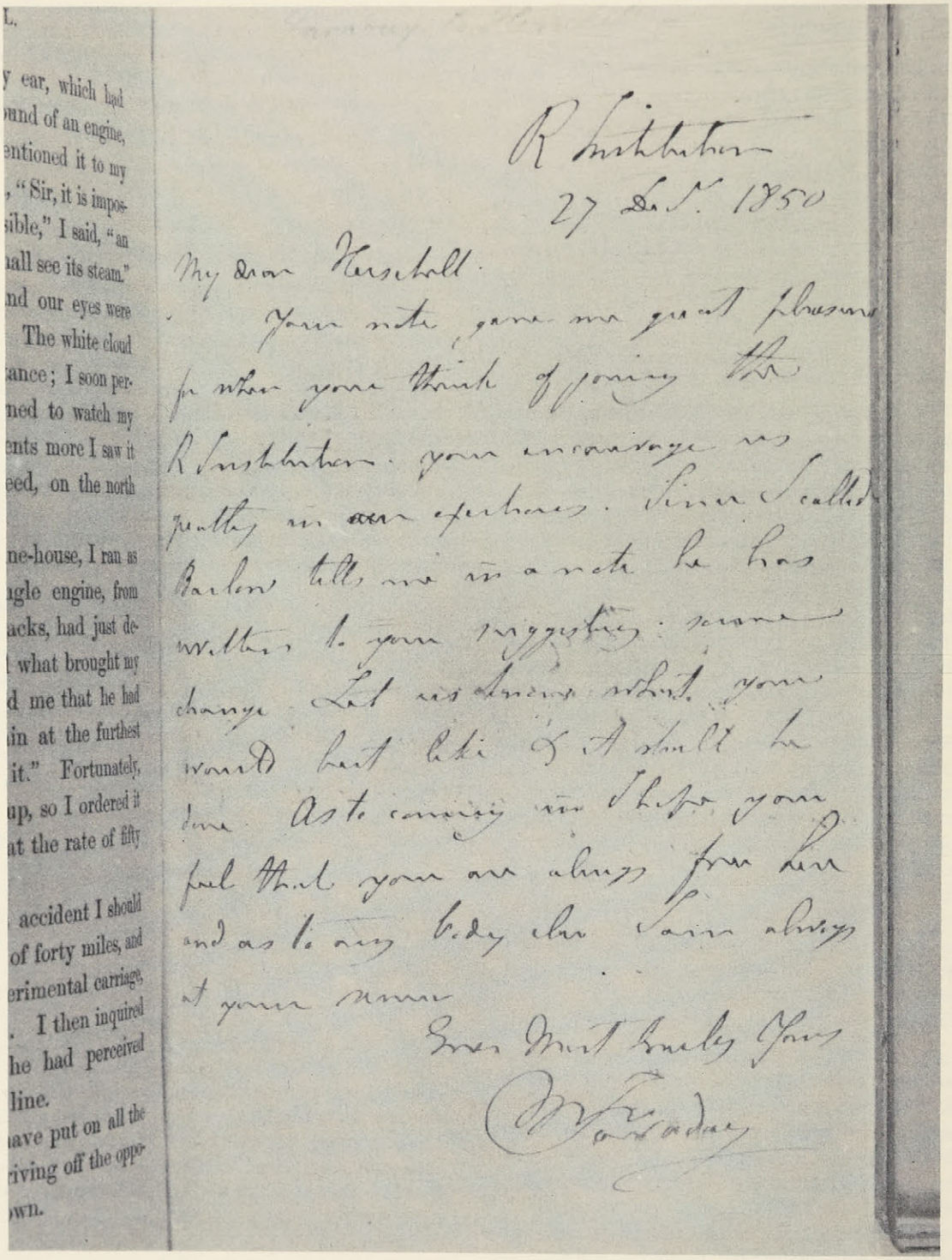
An autograph letter by Louis Pasteur is preserved in the Osler Library.

Among the papers attributed in the catalogue of RBD to Raymond Poincaré, the politician and later President of the French Republic, there is one which, in fact, is written by his cousin, Henri Poincaré, the mathematician, whose importance for the philosophy and methodology of science has been more fully appreciated during the last two decades. It is a letter to an unnamed friend, concerning the Fuchsian functions. It is undated, but since the "Mémoire sur les fonctions zétafuchsiennes,"[31] of 1885 is referred to, it must have been written not long after this date.

Among the documents concerning Canadian scientists of the nineteenth century those concerning geology are the most numerous. To begin with, the papers and extensive correspondence of the first director of the Geological Survey of Canada and discoverer of natural resources, William Edmond Logan (1798-1875), are preserved in the Archives and RBD.

Next comes the large collection of documents in the Archives relating to Logan's younger friend, John William Dawson (1820-1899), Principal of McGill from 1845 to 1893, where for many years, as Logan Professor, he taught geology and palaeontology. The papers show his lifelong interest in the relation between science and religion as well as his strong criticism of Darwin. A part of his correspondence concerns his activities for the Royal Society of Canada, of which he was the first president (1882), and for learned societies in Britain and the United States. Furthermore, the Archives contain the papers and daily correspondence of his son, George Mercer Dawson, the geologist, which throw light on his survey of the Canadian West and North.

The Archives also preserve the papers of another eminent geologist, Frank Dawson Adams, J.W. Dawson's successor as Logan



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y ear, which had
ound of an engine,
entioned it to my
, "Sir, it is impos-
sible," I said, "an
nall see its steam."
nd our eyes were
The white cloud
ance; I soon per-
ned to watch my
ents more I saw it
eed, on the north

ne-house, I ran as
gle engine, from
acks, had just de-
what brought my
d me that he had
in at the furthest
it." Fortunately,
up, so I ordered it
at the rate of fifty

accident I should
of forty miles, and
erimental carriage,
. I then inquired
he had perceived
line.
ave put on all the
riving off the oppo-
wn.

R Institution
27 Dec. 1850

My dear Herschell.

Your note gave me great pleasure
for when your think of joining the
R Institution your encouragement
gratify in our efforts. Since I called
Barlow till me in a note he has
written to you suggesting some
change. Let us know what your
would best like & I shall be
sure. As to coming in Thursday
feel that you are always free
and as to any body else I am always
at your service

Ever Most truly Yours
M Faraday

Figure 8. Letter of Michael Faraday to John Herschel, 27 December 1850, bound into Charles Babbage, *Passages from the Life of a Philosopher*, 1864 (MS 173).

Professor of Geology, whose collection of early printed books on geology is now in the Osler Library.

Regarding scientists of international fame who were associated with McGill, the name of Ernest Rutherford naturally comes to mind. Thirty-eight letters and two postcards from Rutherford to Eve discovered in the Macdonald Physics Building in the 1970's are now in the Archives.[32] A large documentation has been assembled there and in the Rutherford Museum, covering the period of Rutherford's teaching career at McGill (1898-1907) and his later activities, with copies of his correspondence. Above all, the apparatus which he used in his experiments at McGill is still extant.

Experiments by Rutherford and Frederick Soddy are recorded in the minute-books of the McGill Physical Society. Seven volumes covering the years 1857 to 1959 are preserved in the Archives.

The extensive collection of papers concerning Sir William Osler contains not only his correspondence and personal and family papers but also numerous documents relating to his professional activities as a physician, teacher and author. It is housed in the library bearing his name. A summary description is given in *A Guide to Archival Resources at McGill University*.

An important connection with science in Russia is provided by the papers left by Boris Petrovich Babkin, a renowned physiologist. He had in his youth been Ivan Pavlov's assistant, remained a close friend throughout the latter's life, and became the author of Pavlov's biography.[33] In exile from his country since 1922, he began teaching at McGill's Faculty of Medicine in 1928. From his retirement in 1942 until his death in 1950, he continued his work as an associate of the Montreal Neurological Institute. The documents preserved in the Osler Library include his correspondence with Pavlov and his family. Full records of his experiments and correspondence with his colleagues are kept in the University Archives.

The collection of documents concerning Wilder Penfield's life and work, preserved at the Montreal Neurological Institute, is a unique source for the history of neurology and neurosurgery. A detailed inventory listing most of the papers is available there, taking account of his various activities, his correspondence, events of his life and his writing.

Evidence of links between defense research and national politics is contained in the papers of Otto Maass, MacDonald Professor of Physical Chemistry from 1923 and, until his retirement in 1955, Director of the Pulp and Paper Research Institute of Canada. Preserved in the University Archives, the Maass papers contain letters to and from Lester Pearson on NATO and the nuclear deterrent.

The University Archives also house the papers of Donald Hebb, professor of psychology from 1947 and Chancellor of the University, 1970-1972. They concern his work as a psychologist and are of particular interest in view of the influence of his book, *The Organization of Behavior*[34], on what was later to be called neuroscience.

Lastly, attention must be drawn to the wealth of material, preserved in the Osler Library, concerning the life and work of Norman Bethune, whose memory is revered in contemporary China. There are many letters (copies and not a few originals) of various periods; there are case records made during the time he worked in the Royal Victoria Hospital; and there is evidence of his activity as Secretary of the Montreal Group for the Security of the People's Health ("an open letter to all potential candidates seeking election in Montreal" in 1936), and an album with miscellaneous photographs illustrating his life in China.

(VI) Special Collections

No adequate impression could be gained of the nature and the wealth of the treasures preserved at McGill without taking account of its many special collections some of which are noted below. A survey with detailed descriptions is urgently required. No more than a few preliminary remarks can be given here.

It is a pleasure to record that several major collections are in a satisfactory state, readily accessible to users:

The Rosalynde Stearn Puppet Collection, outstanding for its antique puppets and more than 2700 volumes on puppets from many countries, is accessible through its published catalogue.[35]

Through the catalogue (mentioned above)[36] of its 60,000 volumes, the resources of the Blacker-Wood Library of Zoology and Ornithology are known to scholars. As noted above, the collection includes thousands of letters among which is one by Audubon, as well as many drawings and paintings of animals. Among the latter are 35 paintings of birds by the young Edward Lear, one of which has lately been reproduced on a stamp by the British Post Office.

The Frank Dawson Adams collection numbering over 1500 volumes on geology and on early science, now in the Osler Library, is fully catalogued.

The remarkable Colgate collection, kept in the Colgate Room (RBD), contains 13,300 items on the history of the book and of printing as well as many examples of fine print.

The Wainwright collection housed in the Law Library contains over 800 books, mostly by French jurists from the sixteenth to the nineteenth century or by writers on French legal history.[37] They are accessible through the general catalogue of the Law Library.

The greater part of the Lande collection of rare Canadiana is accessible through privately printed catalogues.[38] Checklists of two small collections, one concerning the Moravian mission to the Eskimos of Labrador, the other concerning manuscript material on the Canadian Indians and the Pacific North West Coast, appeared in 1973 and 1974. The catalogue of the Lande-Arkin collection concerning Western Canada is yet to come.

Work on the important collection of historical maps has been in progress for some time. It contains, apart from several particularly rare items, over 5000 sheet maps and over 500 folded maps from the sixteenth century to recent times as well as over 300 atlases, only partly catalogued. A systematic catalogue will undoubtedly be generally welcomed.

McGill was fortunate in acquiring in 1980 the collection of over 500 volumes amassed by Gregor Malantschuk in Copenhagen whose aim was to reconstruct Kierkegaard's library by acquiring a copy of each book known to have been read by him. In addition, he collected works on Kierkegaard which appeared after his death. The catalogue which has been produced[39] does not make a distinction between these two categories nor does it list separately the books owned by Kierkegaard himself. The user interested in the latter has to go through the whole catalogue before identifying the seven copies which were clearly Kierkegaard's own and the six others which, on good evidence, are assumed to have been his. These 13 books include, for instance, a copy of Hegel's *Phänomenologie des Geistes* (Berlin 1832) and the *Vorlesungen über die Philosophie der Religion, nebst einer Schrift über die Beweise vom Daseyn Gottes* (Berlin 1840) as well as a copy of Jakob Boehme's *Hohe und tieffe Gründe von dem dreyfachen Leben des Menschen* (Amsterdam 1660).

It is due to the skill of Dr. Hans Möller, formerly Director of McGill University Libraries, now editor of *Fontanus*, that this precious collection could be transferred from Copenhagen to McGill. Professor Alastair McKinnon, the author of many studies on Kierkegaard, informed me that he will supply the missing introduction to the catalogue. These scholars will no doubt draw attention to the special interest attached to some of the books now in RBD, once owned by Kierkegaard, such as Thomasine Gyllembourg-Ehrensvärd's novel on two eras *To Tidsaldre: Novelle*, Copenhagen 1845, which he annotated.

Less fortunate have so far been the collections described below.

Of major interest to the historian are the Redpath Tracts, a collection of over 20,000 pamphlets related to British history from the middle of the sixteenth to the end of the nineteenth century, concerning historical events and politics as well as religion and theology. Of the nine series, seven are bound in approximately 1200 volumes. One series is contained in over 100 boxes and one, comprising over 500 items, is unbound.

For the first two series there are author cards in the RBD catalogue together with a chronological list of many of the others. A complete bibliographical listing of this important source material has been desired for a long time. It is welcome news that large parts of it have now been entered into various databases.

Mention should be made of the small unlisted collection of seals of monarchs (i.e. Queen

Elizabeth I, Charles I, James VI, Queen Victoria), princes, popes and freemasons, preserved in RBD.

For the large collection of about 2400 autograph letters in many languages, there is at least a list of authors and addressees in RBD.

Whereas the William Blake collection (given by Lawrence Lande to McGill) is now known through a recently published catalogue (McGill University, 1983), several other collections concerning English literature, such as the more than four hundred volumes given by Dr. Sydney T. Fisher (which includes a copy of a Fourth Folio Shakespeare), are not yet catalogued. The same is true of Sir E.K. Chambers' Shakespeare collection, the books by and about Robert Louis Stevenson given by Norman Friedman, as well as those by and about Malcolm Lowry. Lists are kept in RBD.

A collection of nearly 8000 Canadian pamphlets of the nineteenth and twentieth century arranged in alphabetical order is not yet catalogued.

It is surprising to find that a collection of 172 volumes which belonged to Charlotte Trottier Desrivières, née Guillimin, who became James McGill's wife in 1776, still remains unlisted and unarranged. Although it is unlikely to contain any rarities, the collection would show what kind of books formed the library of a woman of French Canadian origin.

Still uncatalogued, too, are the 26 volumes, mostly French books of the late eighteenth and early nineteenth century, once owned by the leader of the 'patriots,' Louis Joseph Papineau.

For the interesting Napoleon collection consisting of over 3500 prints, a manuscript catalogue, written by Mr. Richard Pennington in loose-leaf binders, is kept in the Print Room. Over 1000 rare books concerning Napoleon are kept in RBD.

The Bewick collection regarding Thomas and John Bewick and volumes containing examples of their work includes many nineteenth-century woodblocks some of which have been taken to be the Bewicks' early work. It is uncatalogued. A critical report by Christopher Heppner is found in *The Book Collector*, Spring 1986, "A Collection of Woodblocks and related Material at McGill University."

A provisional catalogue to the outstanding Hume collection is kept in RBD. A definitive catalogue demands special expertise due to the complicated problems of eighteenth-century bibliography. It would have to include also such minor items as a check signed by Hume and references to the notes made by later owners of Hume's works. It would be of great value to the students of Hume.

Particular problems are presented by the Oriental collections (other than the Islamic ones). It may be expected that the still uncatalogued over 400 Chinese and Japanese books will be rendered accessible, once the proposed exchanges with scholars of these countries bear fruit. The same applies to the rich collection of palm-leaf manuscripts, mostly Sinhalese ('olas'), which are still unlisted. A fairly large collection of Assyrian and Babylonian documents requires a systematic study by specialists.

In 1981, McGill received an unusual gift, a collection of 2275 volumes of Yiddish literature of the twentieth century, generously donated by the family of the late Joe Fishstein. It is outstanding both by its size and by the great number of rare items which are found only in a few libraries in the world. The collection includes many samples of books published in Eastern Europe before 1939, most copies of which were destroyed during the war. It also preserves some of the rare Yiddish imprints published in the Soviet Union after the war. It is especially valuable for its beautifully designed editions of Yiddish poetry, some of which are illustrated by well-known artists such as the young Marc Chagall and El Lissitski.

Joe Fishstein, who assembled this collection, was by profession a worker in the New York garment industry, at one time a maker of buttonholes. By his flair and the originality of his approach, by the soundness of his judgement and his lifelong dedication to the task of preserving a threatened cultural heritage, he set a shining example to future collectors and lovers of books.

The collection is, alas, largely uncatalogued. We express the hope that a Maecenas may soon come forward in Montreal who, by providing the funds required for an adequate description of each item, will help to make this heritage of

a vanished world accessible to an interested public.

A benefactor might also consider providing the means to catalogue the still unlisted collection of Hebrew books assembled by the late Rabbi Lewin, which includes several imprints of the eighteenth century.

Of particular interest to the student of Greek and Latin literature is the collection of 5600 pamphlets on classical philology and on Greek and Roman authors formed, in the second part of the last century, by Otto Ribbeck (1827-1898), a scholar well-known for his edition of Virgil and of the fragments of Roman playwrights as well as for his history of Roman poetry and many learned articles. Like the young Nietzsche, he was a pupil of Friedrich Ritschl whose biography he wrote. A predecessor of Nietzsche as holder of the chair of classics at Basle, his name occurs in the correspondence between Nietzsche's close friend and ally, Erwin Rohde (who was his guest at Heidelberg) and Nietzsche.

The collection is indicative of the state of scholarship and the trends of research in Nietzsche's time. It contains many items not found anywhere else in Canada nor, presumably, in most libraries of this Continent. Almost all items are in German or in Latin. However, there are a few others such as some numbers of the *Bibliotheca Platonica*, published at Osceola, Missouri, which he evidently received as editor of the well-known periodical *Rheinisches Museum für Philologie*. The *Bibliotheca Platonica*, describing e.g. how the Platonists of some small towns in the Mid-West celebrated Plato's birthday, is a curiosum of some interest for the history of Platonism in the nineteenth century. According to information obtained from the National Library in Ottawa, this remarkable publication is not found in any other Canadian library.

This collection, acquired well over 80 years ago (when Sir William Peterson, himself a classical scholar, was Principal of McGill), is still uncatalogued. As far as the wealth of unbound material is concerned, there can be no doubt that it would be in the interest of scholarship in Canada that the means be found to awaken this precious collection of Nietzsche's time from its long slumber.

(VII) France, Germany, Italy

The foregoing pages give some samples of the wealth of documents preserved at McGill. Not to prolong this survey unduly, the manuscripts and historical documents concerning countries other than those treated above will be dealt with in a future article.

The documents concerning France include a series of charters signed by French kings, the originals of no fewer than twelve of Rousseau's published letters and autographs of many literary figures such as George Sand and Renan. Special interest attaches to two manuscripts of the eighteenth century, which were central in anti-religious polemic, the famous *Traité des Trois Imposteurs* and the copy (not, as has been stated erroneously, the original) of the *Essai de métaphisique* [*sic*] *dans le principe de B***de Spinosa* attributed to Comte Henri de Boulainviller (followed by *La vie de Spinosa par Lucas* and *L'esprit de Spinosa*).

Among the German collection, four unpublished letters by Rainer Maria Rilke, the first dating from 8 November 1896 and addressed to Gabriele Reuter – a precursor of the women's movement – after the publication of her novel *Aus guter Familie*, merit special attention. A list will also be given of the so far unnoticed short autographs of Alexander von Humboldt, and of the historians von Raumer, Ranke and Mommsen. Attention will be drawn to an unpublished letter of 15 April 1865 from Adalbert Stifter, asking for a prolongation of leave from his duties as inspector of schools ('Schulrat'), on account of his cancerous illness, as well as to a communication from Schliemann dispatched from "Troy near the Dardanelles." Mention will be made of two folders containing typescripts of poems by Bertolt Brecht, with a few corrections. Apart from such literary documents, the collection contains many hitherto unnoticed historical documents, ranging from a letter of 1514 by Emperor Maximilian I to charters of Bavarian princes of the eighteenth century.

Among the many items relating to Italy, mention may be made of a seventeenth-century manuscript of Machiavelli, "copied to denounce the poison spread in it," and an elaborate list compiled by the Censor's Office in Florence during the second quarter of the nineteenth century, of publications which were forbidden

to circulate in the Grand-Dukedom of Tuscany (*Libri stati proibiti dalla Censura di Firenze*).

Especially remarkable, as mentioned above, is the extraordinary wealth of original documents concerning Venice, including many State Papers, issued by the Doges from the late thirteenth to the eighteenth century.

Mention must also be made of the documents of lesser importance concerning the United States, Spain, Ireland and Sweden.

* * * * * *

This survey should not end without expressing the writer's thanks to the heads of the various special libraries and, in particular, to Dr. Richard Virr, Curator of Manuscripts in the Department of Rare Books and Special Collections in McLennan Library, and the staff of the Department for their valuable assistance and their unfailing courtesy, making it possible to consult an unusually large number of books in a short time. In the absence of a comprehensive catalogue, the lists kept with great care in RBD have often proved to be the sole reliable guide. I am especially grateful, moreover, to Professor Ethel Groffier of the Faculty of Law for her constant help and meticulous attention to detail.

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14. Peter Dronke, ed., *Bernardus Silvestris: Cosmographia* (Leiden, E. J. Brill, 1978).

15. David H. Weinglass, ed., *Collected English Letters of Henry Fuseli* (Millwood, N.Y., Kraus International Publications, 1982).

16. Cecil Y. Lang and Edgar F. Shannon, eds., *The Letters of Alfred Lord Tennyson* (Cambridge, Mass., Harvard University Press, 1981).

17. Charles R. Sanders, ed., *The Collected Letters of Thomas and Jane Welsh Carlyle*, 12 vols. (Durham, N.C., Duke University Press, 1970).

18. *Ibid.*, vol. 5, p. 228.

19. J. Y. T. Greig, ed., *The Letters of David Hume* 2 vols. (Oxford, Clarendon Press, 1932).

20. Raymond Klibansky and Ernest C. Mossner, eds., *New Letters of David Hume* (Oxford, Clarendon Press, 1954).

21. Horace Walpole's letter to Thomas Gray, 25 January 1766. W. S. Lewis, ed., *Walpole's Correspondence*, vol. XIV (London, 1948), p. 153.

22. C.-A. Sainte-Beuve, *Nouveaux lundis*, vol. IV, 19 janvier 1863 (Paris, Michel Lévy, 1865), pp. 178-179.

23. André-Daniel Laffon de Ladebat, *Discours sur la nécessité et les moyens de détruire l'esclavage dans les colonies* (Bordeaux, 1788).

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25. Greig, *op.cit.*, vol.II, p. 325.

26. Sainte-Beuve, *Nouveaux lundis*, vol. IV, 2 février 1863, p. 222.

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29. Dorothy M. Schullian, ed., *The Baglivi Correspondence from the Library of Sir William Osler* (Ithaca, Cornell University Press, 1974).

30. Dionisio Minaggio, *Feather Book* (Milan, 1618).

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32. See the article by Montague Cohen, "My Dear Eve... The Letters of Ernest Rutherford to Arthur Eve, 1907-1908," *Fontanus*, I (1988), pp. 3-37.

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The F. R. Scott Library

by Bruce Whiteman

The distinguished poet F. R. Scott (1899-1985) taught law at McGill from 1928 until his retirement in 1968, and was Dean of the Faculty of Law from 1961-64. In the fall of 1988 his widow, the painter Marian Scott, donated to the University Scott's personal library of literature and general books. The books now form part of the Canadian literature holdings of the Department of Rare Books and Special Collections. The article describes the Scott library and some of the unusual and valuable books contained in it.

L'éminent poète F. R. Scott (1899-1985) a enseigné le droit à McGill de 1928 à 1968, date à laquelle il a pris sa retraite. De 1961 à 1964, il a été doyen de la faculté de droit. A l'automne 1988, sa veuve, le peintre Marian Scott, a fait don de sa bibliothèque personnelle à l'université, laquelle réunit des ouvrages de littérature et d'intérêt général. Les livres font désormais partie du fonds de littérature canadienne du département des livres rares et des collections spéciales. Cet article décrit la bibliothèque de Scott et certains des ouvrages insolites et inestimables qui en font partie.

You scatter these sources abroad, and who then shall use them?
Oh, I am told, they will have a small place in some basement.
Gladly some alien shelves in a distant library
will give them safe shelter.[1]

The lines above were written by F. R. Scott at the time of his retirement from the Faculty of Law of McGill University in 1964. His prediction was partly right and – happily – partly wrong; for although his "sources," as he called his books and files, do now have safe shelter in a library, it is a library that is neither alien nor distant. Over the past three years the Scott library has returned to McGill through the generosity of his widow, Mrs. Marian Scott, and Scott's question as to "who then shall use them" can be confidently answered: students and scholars of Canadian literature will find his library a rich resource, and Scott scholars will find it invaluable.

Although it is Scott's personal library, donated to the Department of Rare Books and Special Collections of the McGill University Libraries in August of 1988, that I would like to describe here, his books in fact came to McGill in two lots. The first, representing his legal and political interests, was given to the McGill Law Library shortly after his death in January 1985. It is comprised of the books that he kept in his Law Faculty office, together with a quantity of office files and teaching material. The library which he kept at home bears witness to the other half of his life, and is made up primarily of literature, with an emphasis naturally on English-Canadian and Québécois poetry. English and American poetry is well represented, as are general fiction and belles-lettres, and there are also books on social issues, politics, Burma (where Scott went in 1952) and other subjects.

The heart of the Scott library, however, is the extensive collection of Canadian poetry in both languages, though in terms of numbers the English surpasses the French. A good deal of Scott's early work appeared in the *McGill Fortnightly Review* (1925-26) which he helped to found,[2] and his earliest appearance in a book was in the seminal anthology *New Provinces*, which Macmillan of Canada published (at the poets' expense) in 1936. Yet largely because of the Depression, Scott's first book did not appear until 1945 when the Ryerson Press issued *Overture*. His last book was appropriately enough *The Collected Poems*, published in 1981 and winner of the Governor-General's award. The Canadian poetry in his library is strongest for the period of almost 40 years spanned by his own first and final collections. There are some surprising omissions, such as the books published in Montreal by John Sutherland's important First Statement Press between 1945 and 1951; but these aside, the library attests to a poet who bought and read with some assiduity the poetry of his own time and place.

As one might expect, the Scott library is rich in presentation and association copies, and it is some of these that I would like to mention individually. One of the earliest is a copy of Leo Kennedy's collection *The Shrouding* (1933), which is inscribed "for Frank Scott:–| editor, proofreader,–| obstetrician! | Leo Kennedy | Dec | 33." This is by no means the only book in the library that testifies to Scott's assistance to other poets. His copy of the first edition of Leonard Cohen's first novel, *The Favorite Game*, is inscribed "For Frank Scott | who has led us all | into a strange community–| with affectionate admiration | Leonard Cohen | Foster Poetry Conference | October 14, 1963." A copy of poet Seymour Mayne's first book, *That Monocycle the Moon*,[3] with Scott's name painted on the rear wrapper, is inscribed "For F. R. Scott, | poet of ye olde guarde, | who taught me | how to be sharp–| Seymour Mayne, | May 21 | 64." On a lighter note, though still indicative of the respect that Scott elicited from his colleagues, is copy of Louis Dudek's *Technology & Culture* (1979) which has tipped in a note addressed to "Dear Great Father-Figure." Other interesting copies include the following: Ron Everson's *Blind Man's Holiday* (1963) with a charming note laid in describing the book as "a handy size for putting under the leg of a teetery table, or to put a mug of hot buttered rum on;" Doug Jones' *Phrases From Orpheus* (1967) with a long inscription and a typed poem laid in entitled "Some Words for the Wine on the Occasion of the Seventy-Second Birthday of Frank Scott, (August 1, 1971);" and a copy of Peter Stevens' anthology, *The McGill Movement: A. J. M. Smith, F. R. Scott and Leo Kennedy*, with Scott's trenchant comment on the half-title: "A four-legged animal. | Where's the Klein leg?"[4]

Among the uninscribed books are a number of scarce and rare ones. There is, for example, a copy of Ralph Gustafson's second book, *Alfred the Great* (1937), the publisher's stock of which was mostly destroyed in the Blitz. A. J. M. Smith's *The Worldly Muse: An Anthology of Serious Light Verse* (1951) is unexpectedly rare for a similar reason: a warehouse fire shortly after publication ruined the bulk of the edition. There are copies of Al Purdy's rare first book, *The Enchanted Echo* (1944), of Elizabeth Smart's famous novel *By Grand Central Station I Sat Down And Wept* (1945), of the first edition of Malcolm Lowry's *Under the Volcano* (1947), of Gwendolyn MacEwen's first chapbook *The Drunken Clock* (1961), and of the only broadside issued by Contact Press, Kenneth McRobbie's *Jupiter C For the Missile Age* (1958, inscribed to Scott from McRobbie).

Passing to French-Canadian literature, mention might be made of Scott's own *Poems of French Canada* (1977). The library naturally contains a copy of the signed, specially-bound issue of the book, Scott's copy being number one (of 38) and amusingly inscribed on the front flyleaf, "FRS | to | FRS." Scott's collection of Québécois poetry contains a number of presentation copies. This is hardly surprising, as Scott was an industrious translator and one of the few Canadian poets of his generation with friends in both "solitudes." His reputation among the Francophone poets was high, at least until he came out publicly in favour of implementing the War Measures Act during the Quebec Crisis of 1970, and Jacques Ferron was perhaps alone in considering him an interloper. Ferron put an ambivalent Scott character into several of his books. In *Le ciel du Québec* he appears as Frank Anacharsis Scott, and in *La nuit* he is Frank Archibald Campbell;[5] nevertheless, of the several Ferron books in Scott's own collection, two are inscribed to him "avec mes

F.R. Scott, 1939. Charcoal drawing by Fred Taylor. Print Collection, Department of Rare Books and Special Collections.

respects."[6]

Scott worked closely with Anne Hébert on the translation of some of her poems, and their collaboration resulted in *Dialogue sur la traduction* (1970). Scott's copy of Hébert's *Kamouraska*, probably her best-known novel, bears a warm inscription: "Cher Frank Scott ce livre de | fureur et de neige, en souvenir | de "nos dialogues" | En toute amitié | Anne Hébert." Other interesting associations are inscribed copies of the first edition of Gabrielle Roy's *Bonheur d'occasion* and various books by Roland Giguère, François Hertel, Alain Grandbois, Rina Lasnier, Gilles Hénault ("Pour Frank Scott | qui appartient à la | grande famille | internationale des | poètes"), and Jacques Godbout. A particularly nice book is a presentation copy of St-Denys-Garneau's *Regards et jeux dans l'espace* (1937), the poet's only book and one of the first books of modernist poetry in Québec. One of the rarer titles in the library (though in this case uninscribed) is Paul-Marie Lapointe's first collection, *Le vierge incendié*, published in the same year (1948) and by the same publisher (Mithra-Mythe) as the *Refus global*.[7]

Before leaving the Canadian literature portion of the library, brief mention should be made of some interesting translations in Scott's collection. There are a few curiosities here, such as a Romanian translation of Hugh McLennan's *Barometer Rising* and a Dutch translation of John Glassco's version of Aubrey Beardsley's *Under the Hill* (with a happy birthday inscription from Glassco to Scott in Dutch!).[8] Copies of most of the available translations of Québec literature into English are present, e.g., John Glassco's version of *The Journal of Saint-Denys-Garneau* (1963, inscribed to Scott). Among the rarer items are copies of the four mimeographed pamphlets of translations of work by Lapointe, Giguère, Saint-Denys-Garneau and Hénault issued privately by the English poet Gael Turnbull from Iroquois Falls (where Turnbull was practising medicine) in the summer of 1955. There is also a copy of Turnbull's version of Jacques Prévert's *The Moon Opera*, one of 50 copies mimeographed in January, 1955.

Scott's reading ranged far beyond Canadian literature, of course, and his library reflects this. Of English and American literature there are many of the standard works of the standard authors, as well as good runs of a number of writers whom Scott particularly liked. There are first editions of books by W. H. Auden and D. H. Lawrence,[9] some early books of Dylan Thomas, and a copy of the signed, numbered edition of Aldous Huxley's *Brave New World* (1932). Among American poets are to be found copies of Ezra Pound's *Exultations* (1909), all four volumes in dust-jackets of the first edition of William Carlos Williams' long poem *Paterson* (1946-1951), and the scarce first edition, printed in Germany, of Charles Olson's *The Maximus Poems 1-10* (1953). The American poet best represented is ee cummings, of whose books Scott owned nine first editions, including *The Enormous Room* (1922), the privately printed *&* (1925), and the signed issue of the play *Him* (1927).

Scott was not a collector in the bibliophilic sense. He bought books mainly to read them. Neither does he seem to have annotated his books a great deal. Some books have desultory notes or markings and, occasionally, these are of significant interest. For example, he has made some corrections to the text of an interview/discussion among four of the editors of *Preview* magazine. The legendary quarrel between *Preview* and *First Statement*, its rival magazine in Montreal in the 1940s, comes up for discussion. Neufville Shaw remarks,

> But remember the First Statement people were here, in this house [i.e. Scott's home]. They came here once, and they were shown into another room; they were put below the salt as it were, and we were like oil and vinegar. One layer sat on top of the other.[10]

Scott has marked this passage in his copy of Canadian Poetry, and has written in the margin: "Nonsence –![sic] I took them to the back room to give them drinks." Though comparatively small in number, such annotations and marginalia as Scott made are historically valuable. That the library will be kept together will enable such material to be found and used with some ease.

F. R. Scott was certainly one of the most important Canadian poets of his generation, in

addition to being an important legal and political figure. His entire active career as a teacher was spent at McGill University, and it is therefore fitting and satisfying that his books should find "safe shelter" in the McGill University Libraries. The Canadian literature holdings of the McGill Libraries have been substantially enriched by the gift of Mrs. Marian Scott, and scholars and students will have reason to be grateful to her for many years to come.

Notes

1. F. R. Scott, "On Saying Goodbye to My Room in Chancellor Day Hall," in *The Collected Poems of F.R. Scott* (Toronto: McClelland and Stewart, 1981), 218.

2. The Scott library does not include a run of the *McGill Fortnightly Review* nor of *Preview* (1942-45), the little magazine edited by Patrick Anderson with which Scott was closely involved. Runs of both, however, are in the collections of the Department of Rare Books and Special Collections (hereafter RBSC).

3. Mayne attended McGill, and this poem won the Chester Macnaghten prize for creative writing in 1962. The typescript is in RBSC (folio PS8235.C6C45 1962).

4. The reference here is to poet A. M. Klein, whose involvement in the McGill Movement Stevens ignores in his book.

5. Scott marked several passages in his copy of *La nuit* (Montréal: Editions Parti-Pris, 1965), including one on page 109: "Il ne me restait plus qu'à croire en Dieu lui-même: je n'étais pas pressé. Il me restait aussi à comprendre Frank: je n'y tenais guère. Il me suffisait comme épouvantail. Je ne lui en voulais même pas. Et je ne pouvais croire qu'il fût le diable. Sans Dieu, pas de diable, mille regrets, cher Lucifer écossais, petite jupe et grandes jambes poilues. Il était tout simplement ridicule, le pauvre; je tenais cependant à rester poli; après tout, j'étais son invitée."

6. These are *L'Amélanchier* (Montréal: Editions du Jour, 1970) and *Le Salut de l'Irelande* (Montréal: Editions du Jour, 1970).

7. As part of the Scott library, Marian Scott donated to RBSC her copy of the *Refus global*. Mrs. Scott is a well-known painter, and was associated with Borduas in the 1940s.

8. Hugh McLennan, *Barometru în urcare* (Bucaresti: Editura Univers, 1971) and Aubrey Beardsley and John Glassco, *De Venusberg* (Amsterdam: N.V. Uitgeverij De Arbeiderspers, 1971).

9. "D. H. Lawrence had a considerable influence. I have still got a very good collection of first editions of his novels because I read them as they came out, and his poetry too." Michael Heenan, "An Interview with F. R. Scott," *Canadian Poetry* No. 19 (Fall/Winter 1986): 94.

10. "Four of the Former *Preview* Editors: A Discussion," *Canadian Poetry* No. 4 (Spring/Summer 1979): 103.

Son of the Great Dominion: W. D. Lighthall and the Lighthall Family Papers

by Richard Virr

The W. D. Lighthall and the Lighthall family papers constitute a rich but largely unexplored source for Canadian literary, social and political history of the latter half of the nineteenth century and the first half of the twentieth century. The greater part of W. D. Lighthall's papers are held by the Department of Rare Books and Special Collections, McGill University Libraries, but the National Archives of Canada (Ottawa), and the McCord Museum of Canadian History (Montreal), have important holdings as well. The purpose of this paper is to make this material better known to researchers by exploring some of the major subjects documented in the Lighthall papers.

Les archives de W. D. Lighthall et de la famille Lighthall constituent un ensemble d'écrits très précieux et mal exploités sur l'histoire politique, sociale et littéraire du Canada à la fin du dix-neuvième siècle et au début du vingtième siècle. Les archives de W. D. Lighthall appartiennent pour la plupart au département des livres rares et des collections spéciales des bibliothèques de l'université McGill mais les archives nationales du Canada (Ottawa), de même que le musée McCord d'histoire canadienne (Montreal), en possèdent également un certain nombre. L'objet de cet article vise à mieux faire connaître ces documents aux chercheurs, en énumérant les principaux sujets qu'ils abordent.

Poet, novelist and anthologist; lawyer, politician and philanthropist; antiquarian, historian and collector; patriot, connoisseur and philosopher, William Douw Lighthall gave expression to all of these activities and traits during his long life. Although now largely forgotten, for almost a century Lighthall played an important role in the cultural and political life of Canada; there was little to which he did not turn his attention whether it was the preservation of the country's historical heritage, the fate and future of native peoples, the resolution of the Boer War, or the solar eclipse of 1936. Born in Hamilton, Ontario in 1857, Lighthall was, in fact, a life-long Montrealer and many of his activities and interests were motivated by and reflected this association. It was from these roots that his concern for the past and future of the Canadian nation sprang.

W. D. Lighthall was educated at the High School of Montreal and at McGill University (BA 1879, BCL 1881, MA 1885, LLD 1921). He began his legal career as the partner of A. C. de Léry Macdonald, the collector of the papers of many of the seigneurial families including the Chartier de Lotbinière, Lemoyne, de Rigaud, Lefebvre de Bellefeuille and Harwood families to most of whom de Léry Macdonald was related.[1] Later Lighthall was the senior partner in his own law firms and was made a KC in 1906. His political activities were confined primarily to the municipal level; he was the mayor of Westmount from 1900-1903 and was one of the founders, in 1901, of the Union of Canadian Municipalities. He served on the Metropolitan Parks Commission for Greater Montreal. As well, he was a founder of the Great War Veterans Association, a forerunner of the Royal Canadian Legion.

In addition to his public activities, Lighthall pursued historical and literary interests. A founder of the Chateau Ramezay historical museum, he served as president of the Antiquarian and Numismatic Society and had an important role in the erection of the de Maisonneuve monument on Place d'Armes. He was deeply concerned for the history of

Montreal and wrote *Montreal after 250 Years* (1892) and *Sights and Shrines of Montreal* (1907). The fate of the original Indian settlement, Hochelaga, was a pre-occupation reflected in many of his writings.

Lighthall was a founder of the short-lived Society of Canadian Literature, 1889-1890, and he published an important anthology of Canadian poetry, *Songs of the Great Dominion* (1889). This was republished in 1893 under the title *Canadian Songs and Poems*. He became a member of the Royal Society of Literature in 1895. In 1902 he was elected a fellow of the Royal Society of Canada and in 1917-1918 served as its president. He was one of the founders of the Canadian Authors' Association and was its president in 1930.

Lighthall developed a personal philosophy of virtue and universal goodwill. His views were embodied in his novels *The Young Seigneur* (1888), *The False Chevalier* (1898) and especially in *The Master of Life* (1908). However, his views were given a more systematic and developed expression in his treatises on ethics and politics including *Sketch of the New Utilitarianism* (1887); *Canada: A Modern Nation* (1904); *Superpersonalism, The Outer Consciousness: A Biological Entity* (1926) and *The Person of Evolution* (1930). His views found practical expression in his support of the Armenian Relief Committee in the 1920s and the Committee for Spanish Democracy in the 1930s.

In 1890 Lighthall married Cybel Wilkes, granddaughter of the Reverend Henry Wilkes (1805-1886), the well-known Congregationalist minister in Montreal. They had three children, Alice Margaret Schuyler (b. 1891), Cybel Katherine Schuyler (b. 1893) and William Wilkes Schuyler (b. 1896). Cybel Wilkes Lighthall was a founder of the Canadian Handicrafts Guild and her daughter Alice was to be equally active in this organization. Alice was a volunteer nurse in France during the First World War. She was also a long-time member of the Canadian Authors' Association. Her brother, William S., fought with the British Forces in Mesopotamia and was an early member of the Royal Flying Corps.

In August 1983, the Department of Rare Books and Special Collections, McGill University Libraries, received from Miss Alice Lighthall approximately five metres of the papers of her father, William Douw Lighthall, and six metres of papers of other members of the Lighthall and related families. The Libraries already had approximately one metre of W. D. Lighthall's papers received at various times between ca. 1910 and 1946. This large body of material with some related holdings at the McCord Museum of Canadian History and at the National Archives of Canada constitutes a major primary source for the study of various aspects of Canadian life in the nineteenth and twentieth centuries.[2]

The papers of W. D. Lighthall document most aspects of his multifarious activities as well as aspects of his private life. Among the latter, in addition to correspondence with family members, there are materials on his investments in Clark Gold Mines (1936-1942) and Montreal Aircraft Industries (1928-1942). However, it is with his more public activities that the bulk of Lighthall's papers deals and in the following survey only the most significant or unusual subjects can be mentioned.

Lighthall claims attention perhaps first as a Canadian literary figure. The publication of his *Songs of the Great Dominion* in 1889, the year following the appearance of his first novel, *The Young Seigneur*, marked his formal emergence on the Canadian literary scene. The anthology appeared in the English series "Canterbury Poets" under the general editorship of William Sharp (1855-1905), who is best remembered as the novelist whose pseudonym was Fiona Macleod, and much correspondence passed between Lighthall and Sharp. In the preparation of *Songs of the Great Dominion*, Lighthall corresponded with many of his poets and these letters will be found in the correspondence series of the papers. He also acquired copies of their works, many of which are annotated and, along with an annotated proof copy of *Songs of the Great Dominion*, are held in the Department of Rare Books and Special Collections. Among the poets for whom there is material are Charles Sangster, Archibald Lampman,[3] William Wilfred Campbell, Pauline Johnson, Charles C. D. Roberts, John Reade, Bliss Carman and Susie Frances Harrison. It was at this time that Lighthall joined others in founding the Society of Canadian Literature, 1889-1890, and the correspondence file of the secretary for this period, the only records of the Society that appear to have survived, is included in the papers.

W.D. Lighthall, ca. 1900, Notman photograph. Lighthall Papers, Department of Rare Books and Special Collections.

For Lighthall's novels, there exist corrected proofs for *The Young Seigneur* (1888); the manuscript drafts, typescripts and annotated copies as well as the original historical documents for *The False Chevalier* (1898); and the original manuscript of *The Master of Life* (1908). The original documents for *The False Chevalier* are from the eighteenth century and include a transcription of extracts from the diary of Michel Chartier de Lotbinière (1723-1798). They were discovered by Lighthall's law partner A.C. de Léry Macdonald. However, most of the manuscripts, typescripts and galley proofs for Lighthall's novels, as well as many of his other books, are among the Lighthall papers held at the National Archives of Canada.

In 1930, Lighthall was president of the Canadian Authors' Association. This organization was founded in 1921 by John Murray Gibbon, B. K. Sandwell and others to work for copyright protection for Canadian authors. His participation in the C.A.A. is documented by a series of letters and papers which cover the years 1921-1937. In particular, the convention in Toronto in 1931 and the overseas tour of 1933 are well covered. Many Canadian literary figures are represented in this correspondence and their letters are not necessarily limited to C.A.A. business. Among those for whom there is material are Charles G. D. Roberts, Duncan Campbell Scott, John Gavin, Watson Griffin, Goodridge Roberts, E. J. Pratt, Bliss Carman, Pelham Edgar, Lorne Pierce, William Deacon, J. C. Webster and Douglas Sladen. There are also a few letters about Pauline Johnson. In almost every case, additional correspondence from these individuals will be found in the general correspondence series.

Occupying an equally important place in Lighthall's life were his politcal and other public activities. As Mayor of Westmount, Quebec, he was, with Oliver Aiken Howland, Mayor of Toronto, founder in 1901 of the Union of Canadian Municipalities. The papers of this organization for the period 1901-1918 are preserved in the McCord Museum and in the Lighthall Papers in the Department of Rare Books and Special Collections. The latter also include the records of the International Municipal Congress, 1909. Additional records of the Union of Canadian Municipalities are among the Lighthall papers at the National Archives of Canada. The private records of Lighthall's term as Mayor of Westmount (1900-1903) are also at the National Archives. His membership on the Metropolitan Parks Commission for Greater Montreal is documented by minutes, correspondence, drafts of legislation and clippings for the period 1898-1915 in the Lighthall Papers at McGill.

One of Lighthall's proudest achievements in the public sphere was the formation of the Great War Veterans Association. Like many Canadians, Lighthall took a passionate interest in the Great War in which two of his children served in various capacities. It would seem that he found inspiration for this association in the Grand Army of the Republic, the American organization which regrouped those who had fought in the Union Army during the American Civil War. The records of the Great War Veterans Association include letters, papers and clippings, 1915-1918, and notes on the collection of this material, 1942-1943.

The sufferings of the Armenian people during the First World War provoked great sympathy in Canada and Lighthall was involved in the Montreal Branch of the Armenian Relief Fund Association of Canada. The papers of this association include a minute book (1919-1920), correspondence (1919-1921), a scrapbook (1920), clippings and newsletters (1920-1926), a run of *Near East Relief* (1920-1922), and an almost complete run of the *Armenian Monthly* (1926-1927), published by the Armenian boys at the farm run by the Relief Fund in Georgetown, Ontario. In a similar vein, in the 1930s Lighthall joined others including E. A. Forsey and Carl Goldenberg in the Spanish Medical Aid Committee of Montreal, later the Montreal Committee in Support of Spanish Democracy. Among other activities, this group sponsored the visit of André Malraux to Montreal in 1937. The records of the Committee include correspondence, pamphlets and clippings, 1936-1939.

Lighthall had a life-long interest in philosophy. In 1887 he published *Sketch of the New Utilitarianism*. By the 1920s this interest became a paramount concern and he wrote a number of short booklets and longer discussions including *Superpersonalism, The Outer Consciousness: A Biological Entity* (1926) and *The Person of Evolution* (1930).[4] These later

works are documented in a series of papers that includes drafts, proofs and annotated copies of books. As well, there are clippings and correspondence for the period 1921-1944 with, among others, C. W. Hendel of McGill, Hans Driesch of Leipzig and F. C. Shiller of Oxford. Finally, there is the manuscript of Lighthall's last, and unpublished, work in this area *The Shrapnel Theory of the Universe*. Lighthall was active in various philosophical groups and there is a file of correspondence concerning the International Congress of Philosophy which met at Harvard in 1930 and another concerning the Montreal Group of the Canadian Philosophical Association, 1926-1932. The National Archives of Canada has the manuscripts, galley proofs and annotated copies for *Superpersonalism...* as well as some related material.

Lighthall was elected a fellow of the Royal Society of Canada in 1902 and served as president in 1917-1918. His presidential address was entitled "Canadian Poets of the Great War." The papers include a scrapbook of war poems collected by Lighthall. The Royal Society series includes correspondence concerning the election of members and the papers to be read at the meeting of the Society for the period 1910-1917. A second Royal Society series is in the Lighthall papers at the National Archives.

Throughout his life, Lighthall was an active collector of paintings and of art and ethnographic objects. The papers include notes on paintings and objects in his collection, notes and illustrations for lectures on monumental brasses (and a group of rubbings done in the 1880s) and on Flemish primitives. Also, there is a series of photographs of paintings in the Lighthall collection. A small body of correspondence with Sir William Van Horne in the years just before Van Horne's death concern the two collectors' recent acquisitions. Information about the dispersal of the collection will be found in papers of Alice Lighthall for the 1960s and early 1970s (the Cornelius Krieghoffs, however, were sold in the 1920s). Other information on Lighthall's collecting will be found in the David Ross McCord papers held at the McCord Museum.[5] Part of Lighthall's collection of Polynesian masks is now at the Redpath Museum, McGill University.

Lighthall was closely associated with David Ross McCord (1844-1930), the founder of the McCord Museum, and was the executor of his estate. Most of the material concerning the McCord estate will be found in the McCord papers at the McCord Museum, but some relevant material is among the Lighthall Papers. However, Lighthall's interest in Canadian history was not confined to McCord's activities and his museum. This interest was reflected in Lighthall's novels and also in a number of books, pamphlets and articles, some of which have already been mentioned. In addition to his interest in the history of Montreal, he had a special interest in the region around Beauharnois and Huntingdon, Quebec, and there are notes on this area and a number of nineteenth-century documents related to its history.

The physical remains of the past, and its commemoration, had a particular appeal for Lighthall, and he was active in the organization of the Historical Landmarks Association (1903-1908), the placing of historical markers on various buildings in Montreal and the erection of the de Maisonneuve monument. He was involved in the restoration of the Cuthbert Chapel in Berthier, Quebec (1923-1936), and was one of the trustees of Quebec House, the home of James Wolfe, in Westerham, Kent, which was given to Canada by the Montrealer J. B. Learmont. The management of Quebec House is documented by correspondence for the years 1922-1940. Lighthall had hoped to create a similar memorial by the purchase of Lord Amherst's house in England, called Montreal, but this plan did not come to fruition.

Lighthall had a special interest in the native peoples of the Americas and he spent much time investigating the fate of Hochelaga, the settlement on the site of Montreal visited by Jacques Cartier. The novel *The Master of Life* deals with this. Lighthall was made a chief of the Iroquois in 1909 with the name Ticonderoga. He was struck by the similarities between many aspects of Mayan and Chinese culture, and he worked closely with Dr. Kiang Kang-Hu of McGill University in developing his theories and claimed that he had solved the diffusion of culture controversy. His conclusions were embodied in his submission to the Royal Society in 1936, "Is the End of the Diffusion-of-Culture Controversy in Sight?"[6] The series of papers dealing with this aspect of Lighthall's thought contains an extensive body of notes and

documentation and some correspondence, 1932-1939.

Finally, it should not be forgotten that Lighthall was a practising lawyer for much of his life and there is a series that documents some of his activities in this area. Of particular interest are the files concerning the land claims of the Nishga, 1912-1930, and the status of the Six Nations, 1920-1921. Another group of files in this series concerns the "Old Masters Case" (1913-1914). This was an attempted insurance fraud in Montreal for paintings destroyed in a fire. The case is of interest in that it demonstrates the level of collecting expertise and connoisseurship in Montreal at this period.

Any survey of W. D. Lighthall and the Lighthall Family Papers would not be complete without some consideration of the papers of other members of the Lighthall and related families. Some forty individuals are represented and only the most important series of papers are mentioned here.

The Lighthall family, of Loyalist stock, came to Canada from New York state in the early part of the nineteenth century, ca. 1830. They were related to the Schuyler family who in turn were related to the Nyes who were among the claimants to the William Plenderleath Christie estates including the Seigneury of Lacolle. Douw K. Lighthall, the first Canadian Lighthall, was registrar of Beauharnois, Quebec. His son William Francis (1827-1920), a notary, practised in Montreal except for a brief period in Hamilton, Ontario. William Francis married Margaret Wright, granddaughter of Major James Wright of McIntyre. Her father's brother-in-law was Peter Rutherford, builder of Fort Lennox. They had two sons, William Douw (1857-1954) and George Rutherford (1861-1956), also a notary, and a daughter, Katherine.

The papers of Cybel Wilkes Lighthall, the wife of W. D. Lighthall, include some correspondence, primarily from family members, and student work from her training as a kindergarten teacher in 1888-1890. Of particular interest are the cut and folded paper designs. There are also files on the Diggers and Weeders Garden Club, Westmount (1932-1953), the Canadian Handicrafts Guild of which she was a founder (1907-1952), and the Women's Art Society (1920-1924). During the First World War, she worked as a physical therapist and there is some material on the military hospitals for 1918-1919.

The papers of Alice M. S. Lighthall, daughter of W. D. Lighthall, include correspondence (1906-1982), and some manuscripts of her poetry. There are important series documenting her activities on the Indian and Eskimo Committee of the Canadian Handicrafts Guild (1941-1976), and the Montreal Branch of the Canadian Authors' Association; these latter are concerned primarily with the Poetry Group (1943-1968). There is a small amount of material concerning the Girls' Committee of the Griffintown Club, Montreal (1931-1934). Alice served as a V.A.D. in France during the First World War and her war letters will be found in the papers of her parents, of her aunt Katherine and of her grandfather, W. F. Lighthall. Her brother, William S., served with the British forces in France, Mesopotamia, Egypt, Salonica and Palestine during the First World War and was an early member of the Royal Flying Corps. He was promoted to captain by the end of the war and won the D.F.C. Later, he was associated with his uncle George R. Lighthall in trying to develop aviation in Canada. His war letters will be found in the papers of his family and there are some transcripts, but most of William S. Lighthall's papers are held by the Canadian War Museum in Ottawa.

George R. Lighthall, the brother of W. D. Lighthall, married Anne Dean, sister of Mrs. Charles Lyman of the Montreal pharmaceutical family. A founder of the Canadian branch of the Aerial League of the British Empire, his papers contain some information on the beginnings of aviation in Canada. A notary, he drafted the profession of faith of the apostate priest Charles Chiniquy in 1899. Some letters from Chiniquy will be found in the papers of W. F. and Margaret Lighthall, parents of W. D. Lighthall and in those of his sister, Katherine. The daughter of George R., Anne Dean Lighthall, spent most of her life as a nurse in France and Belgium after her conversion to Roman Catholicism in 1914. She was active in the Resistance during the German occupation of France during the Second World War. Her papers include correspondence and two unpublished manuscripts, *Histoire de ma conversion* (ca. 1935) and *Oublier? – Jamais! La Guerre telle que je l'ai vue en France* (1946). The latter also exists in her English version.

Christine Lighthall Henderson (1868-1968), the Montreal poet and a cousin of W. D. Lighthall, is represented by some correspondence and papers primarily for the years 1950-1968, and by some drafts and versions of her poetry. The papers of the Montreal Congregationalist minister, Dr. Henry Wilkes, the grandfather of Cybel Wilkes Lighthall, includes some correspondence (1832-1894), and some of his sermons. The sermon book (1863-1864), kept by Maggie Wales includes sermons by Wilkes and other Montreal preachers including Cornish and Duclos. The Peter Rutherford papers include two files of correspondence (1817-1876), and a ledger (1851-1853). There are also small bodies of papers for various members of the Nye, Hoyle and Schuyler families in the nineteenth century and some legal papers of Edward Ellice.

In addition to the papers that have been mentioned, the collection includes numerous photographs and these constitute a rich source of visual documentation. There are many Lighthall family portraits, and snapshots and portraits of people associated with them and of events in which they participated. For example, there is a photograph of the 1930 Royal Society of Canada dinner at McGill University, and one of the London, England, dinner of the 1933 Canadian Authors' Association; there are portraits of the Birks family of Montreal, of the poet Mary Morgan, and of Lady Roddick; and there is a group of fifty-two snapshots taken in 1918 by Cybel Wilkes Lighthall of convalescent soldiers at Ste. Anne's Military Hospital and at the Lighthall homes in Westmount and at Lac Tremblant.

This survey of the W. D. Lighthall and the Lighthall Family Papers has of necessity touched on only some of the most significant or interesting subjects documented in them. What should emerge from this presentation is that the papers are particularly rich in correspondence on a great variety of subjects and with a wide variety of correspondents. This, given the prominent role of the Lighthalls in so many spheres of activity, makes these papers an important, and as yet largely unexplored, source for Canadian studies.

Notes

1. The de Léry Macdonald collection of seigneurial family papers was acquired by McGill University in 1922 through the offices of W. D. Lighthall. The collection is housed in the Department of Rare Books and Special Collections, McGill University Libraries and has the designation MS 439.

2. The W. D. Lighthall and Lighthall Family Papers are held in the Department of Rare Books and Special Collections, McGill University Libraries, as MS 216. There is a partly-annotated finding-aid with file level descriptions. The McCord Museum of Canadian History holds records of the Union of Canadian Municipalities, 1901-1918, and the McCord Family Papers (M21411). For the latter see: McCord Museum, *McCord Family Papers, 1766-1945* (Montreal: 1986), 2 vols. Lighthall material will be found in volume one, entries 3100-4009. Lighthall was a member of the Library Committee, McGill University, for many years and there is extensive correspondence with the University Librarian, Gerhard R. Lomer, for the period ca. 1920 – ca. 1935 in the library records; see R.G. 40, McGill University Archives.

3. The Lampman-Lighthall correspondence will be published in the not too distant future by Michael Gnarowski in *Canadian Poetry: Studies, Documents and Reviews*.

4. For a discussion of Lighthall's philosophy see, "The Self-Transcendence of Reason, and Evolutionary Mysticism: Richard M. Bucke and William D. Lighthall," in Leslie Armour and Elizabeth Trott, *The Faces of Reason: An Essay on Philosophy and Culture in English Canada 1850-1950* (Waterloo, Ontario: Wilfrid Laurier University Press, 1981).

5. McCord Museum, *McCord Family Papers*. I: 4000-4009.

6. William Douw Lighthall. "Is the End of the Diffusion-of-Culture Controversy in Sight," *Transactions of the Royal Society of Canada*, 3rd ser. 30 (sec. 2) (1936): 49-55.

My Dear Eve...
The Letters of Ernest Rutherford to Arthur Eve. Part II, 1909-1911

by Montague Cohen

In a previous article, annotated transcripts were presented of seven of a set of 37 hitherto unknown letters. These seven letters were written in 1907-08, from Ernest Rutherford in Manchester to Arthur Eve in Montreal. This article contains a further eight letters from Rutherford written in the years 1909-11. These letters are interleaved with annotated summaries of 13 letters from Eve to Rutherford written in the same period, which are owned by Cambridge University. The period covered in this article saw Rutherford's first publication of the nuclear model of the atom, the beginning of the quantum theory of radiation, and a greatly improved knowledge of the properties of radioactive elements and of the radiations emitted in the radioactive process. The correspondants participated in the First International Congress of Radiology in 1910, which resulted in the setting up of an International Radium Standards Committee. In addition, the correspondence deals with private matters such as Rutherford's efforts to sell land owned by him near Montreal and Eve's application for a vacant Chair of Physics at Bristol University.

Un article a déjà été consacré à la présentation annotée des sept premières lettres inédites d'une série de 37 qu'Ernest Rutherford a écrites de Manchester à Arthur Eve à Montréal. Les sept lettres on été écrites en 1907 et 1908. En deuxième partie de cet article, huit lettres que Rutherford a écrites entre 1909 et 1911 sont présentées. Celles-ci sont entrecoupées des résumés annotés des 13 lettres d'Eve à Rutherford, écrites pendant la même période, lesquelles font partie de la collection de l'université de Cambridge. La période retracée dans cet article est marquée par la première publication de Rutherford sur le modèle atomique, les prémisses de la théorie des quanta sur la radiation et l'élargissment des connaissances sur les propriétés des éléments radioactifs et des radiations émises dans le cadre du processus de radioactivité. Le premier congrès international de radiologie s'est également tenu en 1910 et a donné lieu à la création d'une commission internationale sur les normes du radium. Ces lettres portent également sur certains aspects de la vie privée des deux correspondants, notamment sur les efforts déployés par Rutherford pour vendre un terrain à proximité de Montréal et sur la candidature d'Eve à la chaire de physique de l'université de Bristol.

An earlier article (Part I)[1] presented the first seven of a series of 37 hitherto unknown letters written from Manchester, England, by Ernest Rutherford to his friend and former colleague, Arthur S. Eve at McGill University. These letters, which are not listed in the *Rutherford Correspondence Catlog*[2] were recently discovered among other documents and letters at McGill. This article continues the story by presenting annotated transcripts of eight further letters from Rutherford to Eve, written in the years 1909-11.

As in the previous article, the letters written *by* Rutherford are interleaved with annotated extracts and summaries of 13 letters written by Eve *to* Rutherford in the same three-year period. Eve's letters have long been in the public

domain since they are part of the Rutherford Collection in the Library of Cambridge University. These letters are therefore not reproduced in full, but it is hoped that the extracts (published by permission of the Syndics of the Cambridge Library) will provide a measure of coherence to what was, after all, a two-way correspondence.

To my knowledge, no photograph exists showing Rutherford and Eve together in the period covered by this article. The nearest substitute (Figure 1) shows the staff of the McGill Physics Laboratory in 1907-08. Apart from Rutherford and Eve, the group includes several colleagues mentioned in the present correspondence.

Ernest Rutherford, 1909-11

At the onset of the period covered by this article, Rutherford had been Head of the Physical Laboratories at the Victoria University, Manchester (usually called simply Manchester University) for almost 18 months. The settling-in period was over, he was firmly in control and had put together a first-rate team of researchers, several of whom would subsequently become world famous. It was undoubtedly one of the most productive, as well as one of the happiest periods in Rutherford's life. Several excellent essays on this period are included in the book *Rutherford at Manchester*,[3] which commemorates the 50th anniversary of Rutherford's 1911 nuclear model of the atom. The nuclear atom is, of course, mentioned in the correspondence presented in this article, but it would be untrue to say that it occupies a central place. On the contrary, both Rutherford's reference to his new atomic model and Eve's response are low key, almost casual. Indeed, it was not until 1913, when Neils Bohr gave Rutherford's atom a mathematical, quantum framework that the scientific world began to accept the theory.

Further background information on the period covered by this article is found in the biographies of Rutherford by Eve (1939)[4] and Wilson (1983),[5] in the series of short biographies of 'Radiological Physicists' published by del Regato (1985)[6] and in a number of other publications listed in the Introduction Notes in Part I.

Arthur S. Eve, 1909-11

During the period under review, Eve rose from the rank of Assistant to Full Professor of Physics at McGill, although his rapid promotion is not mentioned in the correspondence presented in this article.[7] Eve's research in radioactivity in 1909-11 continued along the lines of his earlier work, i.e. measurement of the radioactivity of air, water and rocks; investigation of the secondary radiations produced by β and γ rays; and determination of the properties of β rays, including the absorption of the rays in air and their rate of production of ions. None of these investigations was seminal in the sense of leading to a profound new insight into the nature of matter or of radioactivity, but Eve certainly made a significant, albeit unspectacular, contribution to the science of radioactivity. The growth of this science is illustrated by the fact that, fourteen years after Becquerel's discovery of radioactivity, Marie Curie required almost 1000 pages to cover the subject in the two volumes of her *Traité de radioactivité*.[8]

The correspondence, 1909-11

The arrangement of letters in this article is shown in Table I. The table indicates that the correspondence in this period was erratic; letters were not sent and received in an orderly sequence in either direction. There are several possible explanations for this. Firstly, we cannot rule out the possibility that some letters have been lost, particularly those written in 1909. Secondly, it must be borne in mind that Eve and his family travelled to England regularly – they seem to have spent most summers in England (1911 was an exception) and Eve probably saw Rutherford during these visits. Also, Rutherford visited Canada in August 1909 (for a meeting of the British Association for the Advancement of Science) and the two men met during that visit. Thirdly, in contrast to the correspondence between Rutherford and Bertram Boltwood,[9] the Rutherford-Eve correspondence was mainly a *business* correspondence, in the sense that each wrote when he had something specific either to communicate or to request. Thus Eve requested Rutherford to act as god-parent to his son, to calibrate a radium source, to write a testimonial, to forward a paper for publication, to send reprints of papers. Rutherford, in his turn,

Figure 1. Ernest Rutherford, Arthur Eve and colleagues.

needed Eve's advice on the value, and possible sale, of a plot of land which he (Rutherford) owned near Montreal. It is true, of course, that most letters contain other news and comment, but the correspondence for this period nevertheless gives the impression that the prime purpose of writing was to make a specific request or to provide needed information.

The analysis just made should not be taken to imply that the relationship between the two men was purely formal. We know from earlier correspondence and other evidence (see, for example, Part I) that the two men were good friends and held each other in high regard, at both personal and scientific levels. It seems, however, that by 1909 this warm relationship did not *need* a regular flow of letters to sustain it. Correspondence could therefore be relegated to an intermittent exchange as and when needed.

The Rutherford-Boltwood correspondence was quite different. On average, Rutherford's letters to Boltwood were considerably longer that those to Eve, and the style was different, too. The explanation, I believe, is two-fold. Firstly, Boltwood was a *chemist* who could supply Rutherford with information and advice on chemical aspects of radioactivity and radioactive substances – information which Rutherford needed but which lay outside his own expertise. Just as Rutherford had earlier collaborated with the chemist Frederick Soddy, he now needed and valued the collaboration of Boltwood, either by correspondence or (in 1909-10) by Boltwood's presence in Manchester. Secondly, the Rutherford - Boltwood correspondence contains an element of *banter* which is absent in his exchanges with Eve. Rutherford had a puckish sense of humour which he obviously enjoyed exercising when writing to Boltwood. Thus, on 19 September 1911, Rutherford wrote to Boltwood: "I am surprised at a man of your reputed ability imagining that you can determine such a probability curve with a mere 200 observations without the use of the scientific imagination, which is so unusual in your chemical brethren..."[10] Such a statement (and there are many other examples) is unimaginable in a letter to Eve. The reason, I believe, is that Rutherford was aware that Eve had little or no sense of humour.

The first and last pages of Rutherford's first letter in this sub-set (R-8) are reproduced in Figure 3.

Two problem letters

The dates of two letters in this set are doubtful. The first, E-9, is clearly dated 6 February 1910 but Note 1 of E-9 sets out four reasons for believing that Eve actually wrote the letter on 6 February 1911 and '1910' was a simple mistake. Nevertheless, this letter has been placed in its nominal (1910) position in relation to other letters.

The other doubtful letter, E-15, also from Eve, is undated. In the Cambridge Collection this letter is provisionally dated September 1911 but there are good reasons for believing (see Note 1 of E-15) that the letter was written several months earlier, in late April or early May. In this article the letter has been assigned a place corresponding to April 1911.

Scientific background to the Correspondence, 1909-11

The letters in this article were written during a period which was particularly productive in physical science: major advances were made in both experimental and theoretical physics and, in addition, three events took place which were important landmarks in the development of physics and radiology. Many of these themes, summarized below, are reflected, to a greater or lesser extent, in the Rutherford-Eve correspondence:

- The genesis of the nuclear model of the atom. Rutherford's first paper on the nuclear atom was published in 1911, although the underlying observations and measurements, on the diffusion (scattering) of α-particles by matter date back to 1906 and especially to 1909-10. However, the earlier work is not discussed in the present correspondence and (as already pointed out) even the 1911 nuclear atom receives little more than a passing mention.
- The emergence of the quantum theory of radiation. The idea that energy flows in discrete bursts or *quanta* was advanced by Planck as far back as 1900, but the hypothesis was not applied seriously to X and γ rays until 1909-11, when Stark and later W.H. Bragg put

THE INTERNATIONAL RADIUM STANDARDS COMMITTEE.

Members:
B. BOLTWOOD; M. CURIE; A. DEBIERNE;
A. S. EVE; H. GEITEL; O. HAHN; ST. MEYER;
E. RUTHERFORD; E.v. SCHWEIDLER; F. SODDY.

Secretary:
PROF. Dr. STEFAN MEYER
Institut für Radiumforschung, Wien,
IX., Waisenhausgasse 3 (Austria).

Bruxelles, 15. Sept. 1910.

Congres internat. De radiologie.

Statement of the Standards - Committee.

1). Mme Curie has kindly consented to prepare a radium standard containing about 20 milligrams of radium (element).

2). As soon as the Standards-Committee reimburse Mme Curie for the cost of the standard, the latter comes under the control of the Committee and is only to be used for purposes of comparison with the secundary standards. The standard is to be suitably preserved in Paris.

3). Through the Committee and at their discretion National Scientific Laboratories willing to pay the costs are to be provided with the international standard.

4). In due course, by such methods, as the Committee after due investigation approve, smaller standards are to be prepared.

5). Since the radium-emanation is now so much used in scientific investigations the Committee consider it desirable to adopt a unit for the quantity of emanation. Following the suggestion of the Conference, the Committee recommend that the name „Curie" be given to the quantity or mass of emanation in equilibrium with one gram of radium (element). For example the amount of emanation in equilibrium with 0.001 gr. radium would be called one „Milli-Curie".

6). The Committee have under consideration the question whether special names should be given to a small quantity of radium and for the emanation in equilibrium with it.

7). Since some members of the Standards - Committee are not present at the Congress (Bruxelles) the suggestions made alive are necessary tentative. The Committee reserve full power to modify them on further consideration.

Figure 2. Preliminary statement of the International Radium Standards Committee drafted by the Secretary of the Committee, Professor Stęfan Meyer, on 15 September 1910. (This document was found among Eve's papers at McGill University.)

forward a 'corpuscular' explanation of the properties of these rays and, in particular, their observed interaction with matter and the production of secondary radiations. These problems receive a fair amount of attention in the Rutherford-Eve correspondence.

- The nature and properties of radium emanation (radon) continue to feature prominently in Rutherford's work and in his letters, as do his complaints about Sir William Ramsay's work in this field.
- The first International Congress of Radiology and Electricity took place in Brussels in September 1910, and both Rutherford and Eve participated. An important decision of the Congress was the setting up of an International Radium Standards Committee charged with defining a unit of radioactivity and preparing an International Radium Standard. Rutherford was one of the two British representatives on the Commission (the other was Soddy) while Eve represented Canada. The preliminary statement of the Committee, drafted by its Secretary, Professor Stefan Meyer of Vienna, is shown in Figure 2.
- A further important event was the first Solvay Conference held in Brussels in October, 1911. The conference was organized and paid for by the Belgian industrialist Ernest Solvay and about 15 of the world's leading scientists, including Rutherford, Marie Curie, Einstein and Planck were invited. The subject discussed was the "Theory of Radiation." Unfortunately, Rutherford made no mention of this conference in his letters to Eve, although he published an account of the meeting in *Nature*.[11]

Private background to the Correspondence, 1909-11

The background to the correspondence in this article includes private as well as scientific events. The most important private matters covered in the letters are as follows:

- Rutherford's desire to evaluate, and subsequently to sell, the plot of land near Montreal which he had purchased (in 1905?) for the purpose – never fulfilled – of building a house. This matter occupies a prominent place in the correspondence from October 1909 onwards, especially since Eve himself eventually purchased the land in June 1911. Thereafter, for the next 20 years, Eve wrote to Rutherford at least twice a year, if only to enclose the half-yearly interest payment of $62.50 on the $2500 mortgage which Rutherford had provided.
- In 1910 Eve made an unsuccessful application for the vacant Chair of Physics at Bristol University in England. The matter unfortunately dragged on, since no appointment at all was made for several years, and this occasioned some caustic comment by Rutherford in his letters.
- At the beginning of the present set of letters there is an exchange relating to Eve's newly-born son Richard Stewart and Eve's request that Rutherford assume the role of god-parent. Rutherford accepted but did not attend the christening.

Introduction Notes

1. Montague Cohen. "My Dear Eve... The Letters of Ernest Rutherford to Arthur Eve, 1907-1908," *Fontanus*, 1 (1988): 3-37.

2. Lawrence Badash. *Rutherford Correspondence Catalog* (New York: American Institute of Physics, 1974).

3. J. B. Birks, ed. *Rutherford at Manchester* (London: Heywood and Co., 1962).

4. Arthur S. Eve. *Rutherford. Being the Life and Letters of the Rt. Hon. Lord Rutherford, O.M.* (Cambridge: Cambridge University Press, 1939).

5. David Wilson. *Rutherford, Simple Genius* (Cambridge, Mass.: MIT Press, 1983).

6. J. A. del Regato. *Radiological Physicists* (New York: American Institute of Physics, 1985).

7. The promotion to Associate Professor, in 1909, had been delayed a year by budgetary constraints, while the further promotion, in 1910, was perhaps spurred by the fact that Eve was known to be applying for professorial posts elsewhere.

8. Marie Curie. *Traité de radioactivité* (Paris, Gauthier-Villars, 1910).

9. Lawrence Badash, ed. *Rutherford and Boltwood: Letters on Radioactivity* (New Haven: Yale University Press, 1969).

10. Badash. *Rutherford and Boltwood*: 253-54.

11. E. Rutherford. *Report on Conference on the Theory of Radiation* (Brussels, 29 Oct.-4 Nov. 1911.) *Nature*, 88 (16 Nov. 1911): 82-83.

TABLE 1

The McGill Collection of Rutherford-Eve Correspondence
Section II: 17 January 1909 – 1 November 1911

Rutherford to Eve		Eve to Rutherford	
		E-8	17 January 1909
R-8	30 January 1909		
R-9	6 May 1909		
R-10	28 October 1909		
		E-9	6 February 1910[1]
R-11	30 September 1909		
		E-10	8 October 1910
		E-11	11 October 1910
		E-12	16 October 1910
R-12	16 October 1910		
		E-13	4 November 1910
		E-14	5 January 1911
R-13	21 January 1911		
R-14	15 February 1911		
		E-15	? April 1911[2]
		E-16	8 May 1911
R-15	14 June 1911		
		E-17	19 June 1911
		E-18	28 August 1911
		E-19	17 October 1911
		E-20	1 November 1911

[1] This letter is clearly dated February 1910 and is therefore placed in this position in the collection. However, there is strong evidence that the actual date of writing was February 1911: see Note 1 of letter E-9.

[2] This letter is undated but is ascribed to September, 1911 in the Cambridge University Collection. However, the context of the letter points to an earlier date, April (or possibly early May) 1911: see Note 1 of letter E-15.

E-8 Eve to Rutherford

167 Hutchison Street, Montreal
17 January, 1909

Eve begins by thanking Rutherford for his letter of congratulation[1] on the birth of a son, the second child of Dr. and Mrs. Eve. He then requests Rutherford to "confer the great favour of becoming godfather to our young man.... If you are too burdened with work and other calls, please do not hesitate to refuse if you think fit. We should be disappointed but not hurt." The letter mentions that Harriet Pitcher[2] had consented to be godmother and that Eve's nephew Jack Eagles, a scholar at Oxford, would be asked to be the other godparent: "With a Nobel man and an Eagle, the unnamed one ought to soar."

Eve next states that he has been reading Curie's collected works. This is a reference to Pierre Curie, husband and collaborator of Marie Sklodowska-Curie. Eve comments: "It is astonishing how slow he was to accept your conclusions,[3] when the facts and evidence were before him. I believe if it had not been for you the whole subject would have been a grotesque muddle to this day, and goodness knows where Ramsay[4] would have led us. Yet Curie seems to have been quite a sound man."

The letter concludes with a short scientific note accompanied by a freehand sketch: "I have put a paper cone on the top of Eberts machine[5] and fired γ rays only through the top. + ions greatly exceed – ions. Ratio 1.8 or 1.4 to 1. There is no free emanation here.... I am going to get to the bottom of this."

E-8 Notes

1. See letter R-7.

2. Harriet Pitcher, *née* Brooks, was Eve's sister-in-law and a former research student of Rutherford. See Note 11 of letter R-1.

3. The "conclusions" related to the nature of radioactivity and the transmutation of elements resulting from radioactive disintegration.

4. Ramsay: see Note 4 of letter R-3 and Note 3 of letter R-9.

5. "Eberts machine" refers to the apparatus designed by H. Ebert of the Physics Institute of the Technical High School in Munich and published in the Proceedings of the German Physical Society in 1905. (H. Ebert, "Eine neue Form des Ionen-Aspirations-Apparates." *Berichte der Deutschen Physikalischen Gesellschaft*, 7, 1/2 (1905): 34-37. An earlier version of the apparatus was described by Ebert in *Phys. Zeit.*, 2 (1901): 662.) The instrument was used to measure ionic charges in the atmosphere, and was often referred to as an "ion counter." It comprised a gold leaf electroscope surmounted by a cylindrical metal condenser through which air was drawn by means of an aspiration wheel driven by clockwork. Knowing the rate of inflow of air, the rate of change of voltage on the electroscope and the electrical capacity of the condenser and electroscope, the charge of either sign in one cubic cm of incoming air could be calculated. The apparatus was available commercially from a German manufacturer and was widely used by researchers.

Eve's experiment, as briefly described in this letter and, shortly afterwards, in a letter to *Nature* [A. S. Eve "Ionisation in the Atmosphere." *Nature*, 80 (March 11, 1909): 36-37. A French translation of this letter was printed in *Le Radium*, 6 (March 1909): 88-89.], involved channelling the air drawn into the ion counter through a paper funnel, the top part of which was irradiated by means of an external radium source. As a result, the number of ions of each sign per cm^3 of air increased from about 1000 (in the absence of radiation) to nearly 40,000 (depending on the intensity of the external radiation). Nevertheless, the ratio of positive to negative charges measured by the ion counter remained about the same – even somewhat higher – than was the case without an external source of radiation. Eve argued that, since the radium source produced positive and negative ions in equal numbers, the discrepancy in the numbers must be due to some other cause, such as the production of doubly-charged positive ions or a difference in the mobility of the ions. Eve returned to this subject a year later, in a paper published in May, 1910: A. S. Eve "The Effect of Dust and Smoke on the Ionization of Air." *Phil. Mag.*, Ser. 6, 19 (1910): 657-673. In this paper, which includes a diagram of Ebert's apparatus, Eve suggests that the apparent excess of positive over negative ions is due, at least in part, to the fact that negative ions rapidly combine with particles of smoke, dust or mist and pass through the testing vessel undetected.

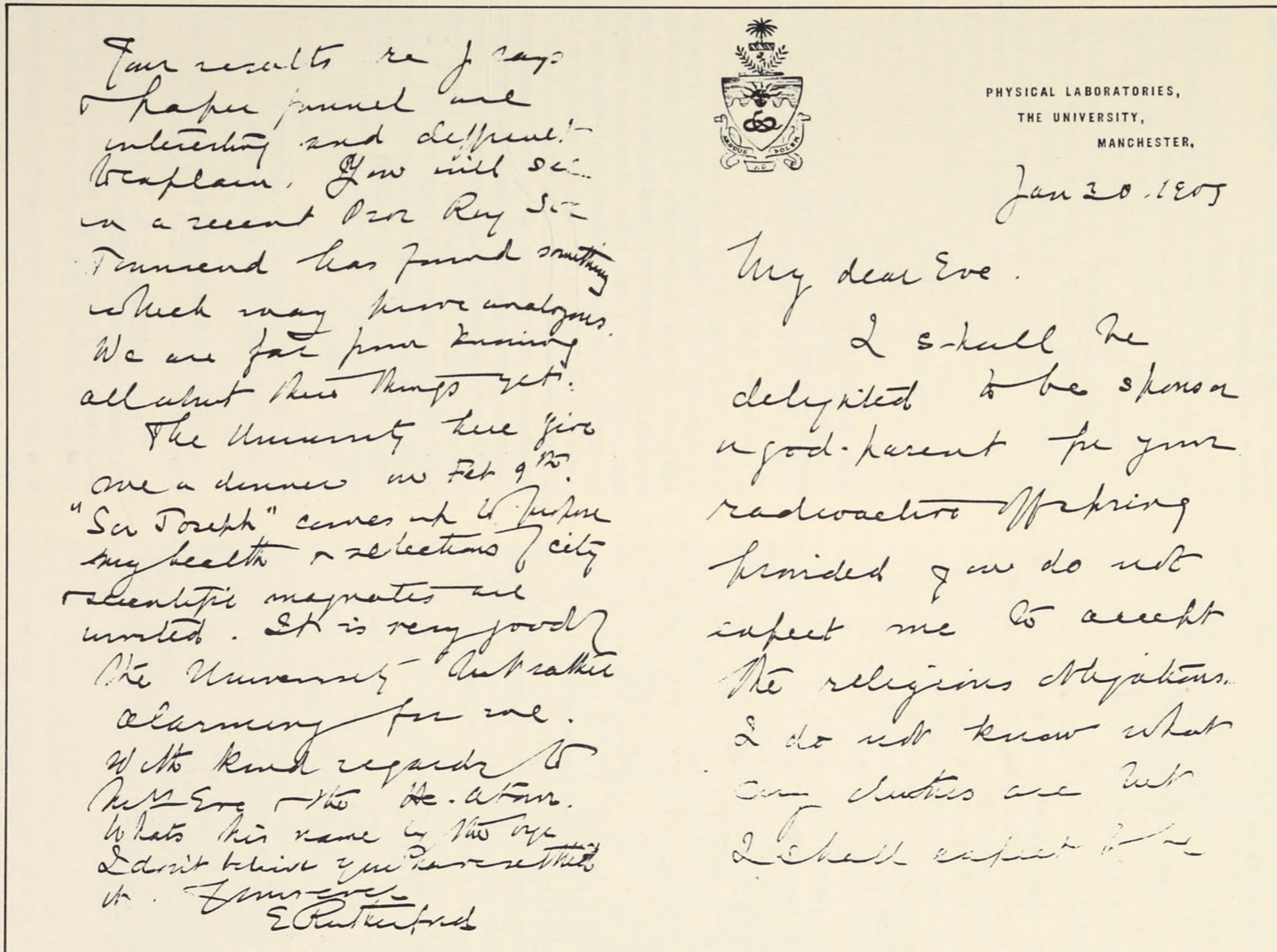

Figure 3. First and last pages of letter (R-8 in present series) written by Ernest Rutherford to Arthur Eve on 30 January 1909.

R-8

The first and last pages of this letter are reproduced in Figure 3.

Physical Laboratories
The University
Manchester
Jan 30 1909

My dear Eve,

I shall be delighted to be sponsor or godparent for your radioactive offspring[1] provided you do not expect me to accept the religious obligations. I do not know what my duties are but I shall expect to be primed by you beforehand. I recognise that I am in excellent company & am flattered by your selection of such an unreligious person as myself.

As to myself, I was kept to the house for a week with water in the knee. I am now myself again and am in excellent form. I have just been investigating the variation of condensation point of the Ra Eman[ation] with pressure. I purify my 1/20 cubic mm of emanation available & press it up into a minute capillary. The experiment works like a charm. I have already got from $-150°C$ to $-100°$ and have not yet got to atmospheric pressure. It looks to me as if the boiling point at atmospheric pressure will be about that of CO_2.[2] I have seen the drops of liquified emanation with the aid of a microscope! I feel quite pleased of myself for I thought it would prove a forlorn hope when I tackled it.

Your results re γ rays & paper funnel are interesting and difficult to explain.[3] You will see in a recent Proc. Roy Soc Townsend has found something which may prove analogous.[4] We are far from knowing all about these things yet.

The University here gives me a dinner on Feb. 9th.[5] "Sir Joseph"[6] comes up to propose my health and selections of city and scientific magnates are invited. It is very good of the University but rather alarming for me.[7] With kind regards to Mrs. Eve and the He. atom.[8] Whats his name by the bye – I don't believe you have settled it.

Yours ever

E. Rutherford

R-8 Notes

1. See letter E-8. As mentioned in Note 1 of letter R-7, Rutherford liked to quip on the subject of radioactivity.

2. Rutherford reported the results of these experiments in a letter to *Nature* published less than three weeks after writing this letter to Eve: E. Rutherford "The Boiling Point of the Radium Emanation." *Nature*, 79 (18 Feb. 1909): 457-58. A more detailed report appeared three months later: E. Rutherford "Condensation of the Radium Emanation." *Phil. Mag.* Ser. 6, 17 (May 1909): 723-29. Rutherford found the boiling point of the emanation (radon) to be about $-65°C$ at atmospheric pressure, a value which (as predicted to Eve) is fairly close to that of carbon dioxide, $-78.5°C$. Rutherford noted that the boiling point of the emanation, as determined experimentally, agreed well with the expected value for a noble gas of atomic weight 222, on the basis of the known variation with atomic weight of the boiling points of other noble gases such as argon, xenon and krypton.

3. See letter E-8, especially note 5.

4. In 1895 John S. Townsend (1868-1957) become one of J. J. Thompson's first research students at the Cavendish Laboratory in Cambridge. (Rutherford joined the laboratory in the same year.) In 1900 Townsend was appointed Wykeham Professor of Physics at Oxford, a position he held for the remainder of his life. Townsend is considered to be the founder of the kinetic theory of ions and electrons in gases and he obtained the first value of the elementary electric charge. The paper referred to by Rutherford is: J. S. Townsend "The Charges on Ions in Gases, and the Effect of Water Vapour on the Motion of Negative Ions." *Proc. Roy. Soc.*, 81A (1908): 465-471. Eve referred briefly to this work in his letter to *Nature* discussed in Note 5 of letter E-8.

5. The dinner was given by Manchester University for Rutherford to celebrate the award of the 1908 Nobel Prize in Chemistry: see letter R-6.

6. Sir Joseph J. Thompson: see Note 2 of letter R-6.

7. "Rather alarming for me." Rutherford was not usually so modest – indeed, all the evidence indicates that he positively enjoyed occasions such as a University dinner given in his honour.

8. "He. atom." A reference to Eve's newly born son: see Note 1 of letter R-7.

R-9

17 Wilmslow Road
Withington
Manchester
May 6 1909

My Dear Eve,

I am glad you have got the christening of "Richard Stewart" over without any assistance although I gather he promises to make himself heard in the world.[1] As an humble contribution from an ungodly god-father, to Richard Stewart, I am sending on by separate parcel a silver rattle and chewing ring. He will early find that the transformation and digestion of silver is not so easy as some have thought.

As to W. R.,[2] I give him up. He has lost caste tremendously the last year & I don't believe any but his most admiring friends believe in him at all.

You will have seen he now finds it convenient to repeat what I do & publish it with details a little earlier if possible than my first paper.[3] The method is original & interesting as an index of Ramsay's attitude. He must occasionally get something right for the look of the thing.

By the way, the radium emanation is devilish funny stuff. We get any rate of decay we want out of it within limits. We believe we are likely to get some interesting results the next few days. We are getting the rate of decay of solid emanation in liquid air. It appears to slow up considerably but time will tell if we are right.[4] Geiger[5] is hard at it & is making good progress. Boltwood[6] comes over in August & works with me for 9 months or so. I am looking forward to a lively time!

I got a cable from Peterson[7] which indicates they are trying H. A. W.[8] as Cox's[9] successor. Do come to the B. A.[10] if possible. Kind regards and best wishes to the "Missis" and the young 'uns.

Yours ever

E. Rutherford

P.S. Have just returned from a month in Italy – sunshine galore.

R-9 Notes

1. The opening sentence of this letter clearly implies the receipt of a letter or letters from Eve, subsequent to E-8 written in January, 1909. However, no such letter survives and we can only surmise that Eve had given Rutherford an account of the christening of "Richard Stewart," the event being judged a success in spite of the absence of one of the god-parents. Rutherford's description of himself as 'ungodly' was apt, since there is no indication that he took any interest in religion throughout his adult life.

2. William Ramsay: see Note 3 of letter R-3. Rutherford's antagonism to Ramsay is frequently vented in correspondence with friends and colleagues such as Eve and Boltwood. (See Note 6 below.) Indeed, in a letter to Boltwood dated 21 July, 1910, Rutherford is more scathing than in any correspondence with Eve. Badash (see p. 222 of Introduction Note 9) quotes Rutherford as follows in this letter: "You will be interested to see the latest communication of the great chemist in Comptes Rendus [11 July 1910, pp. 126-28] apropos of density of the emanation for which five concordant numbers differing by only a few percent are given & a final value 222. It is great. There are no details of weighings but the paper is mostly taken up to say I, Ramsay, determined the volume, the spectrum, the everything of the emanation & I give it the name "niton" – shining – with my fatherly blessing. It is the most admirable piece of boom I have seen for some time. You remember of course the maximum volume of emanation dealt with is 1/10 cubic mm. – a truly great piece of work." It should be added that Rutherford was careful not to adopt this tone in public or in print, in which the decorum of polite society was strictly maintained.

3. Again we turn to Badash (p. 214 of Introduction Note 9) for an explanation. Rutherford made the same complaint in a letter to Boltwood written just before (1 May, 1909) letter R-9 to Eve. Badash quotes as follows: "You will have seen my paper on the emanation in the Phil. Mag. ["Condensation of the radium emanation," May, 1909. See Note 2 of letter R-8] & how Ramsay & Co tried to cut in before the publication of my paper." In a footnote Badash comments: "As reported in *Nature*, 80 (20 May, 1909), 347-48, Ramsay exhibited liquefied radium emanation at the Royal Society's semi-annual *conversazione*, 12 May, 1909. The conversazione was a scientific social event at which members attempted to display striking

features of their work to colleagues and their ladies." Perhaps, however, Rutherford was a little too harsh in his judgement, since he had already established his priority in this matter in a letter to *Nature* published in March, 1909 (see Note 2 of letter R-8), even though his definitive paper in *Phil. Mag.* did not appear until a week or so after the Royal Society conversazione.

4. Rutherford had already presented a short note on this subject at a meeting of the Manchester Literary and Philosophical Society on March 23, 1909 (E. Rutherford and Y. Tuomikoski "Differences in the Decay of the Radium Emanation." *Memoirs* of Manchester Lt. & Phil. Soc., IV, 53, No. 12, 1909: 1-2) In this paper, Rutherford reported that the half-life of the emanation increased from 3.58 days in the first five days after preparing a pure sample, to 3.85 days in the period 20-40 days after preparation. He also noted that different samples of emanation showed different rates of decay, and suggested that emanation was a "non-homogeneous chemical substance." Rutherford seems to have dropped this topic for some time, because his next paper on the subject appeared two years later, in the Proceedings of the Vienna Academy of Sciences of March, 1911. (E. Rutherford "Untersuchungen über die Radium emanation: II. Die Umwandlungs geschwindigkeit." *Berich. de Kaiserl. Akad. Wissenschaften in Wien, Math. – Naturw. klas.* 70, Abt. IIa (March, 1911): 303-12.) In this paper Rutherford refers to his earlier work and suggests reasons for the observed variations. At any rate, he now reports improved methods of measurement which confirm the half-life obtained by Mme Curie in 1910: 3.85 days. There is no longer any question of "inhomogeneity." On the contrary, the half-life of the emanation is found to be independent of physical or chemical processes and is the same at room temperature and at the temperature of liquid air.

5. Hans W. Geiger (1882-1945) was a German physicist who became an assistant to Arthur Schuster at Manchester University in 1906. When Rutherford succeeded Schuster in 1907, Geiger was persuaded to stay on and work in the field of radioactivity. He remained in Manchester until 1912 when he became Director of the Laboratory for Radium Research at the Physikalisch-Technische Reichsanstalt in Berlin. Geiger is probably best known for the "Geiger counter" which he developed (with Rutherford) in 1908 (see note 7 of letter R-5), but his other work in Manchester was of equal importance, especially that relating to the scattering of α-particles – experiments which were an important precursor of the nuclear model of the atom. The first paper on this subject was published later in 1909: H. Geiger and E. Marsden "On a Diffuse Reflection of Alpha Particles." *Proc. Roy. Soc.* A, 82 (1909): 495-500. Rutherford's comment in this letter, that "Geiger is hard at it," was fully justified.

6. Bertram Boltwood (1870-1927) was a chemist by training, but held (since 1906) the post of Assistant Professor of Physics at Yale University. At the time of this letter, Boltwood was preparing to come to England to spend the academic year 1910-11 in Rutherford's laboratory. He returned to Yale in 1911, was promoted to a full professorship in radiochemistry and remained at Yale for the rest of his life. For further details, see Badash *Rutherford and Boltwood*: 12-19.

7. William Peterson (1856-1921) was Principal of McGill University (also Professor of Classics) from 1895-1919. It was Peterson who, together with John Cox (see note 9 below), recruited Rutherford for McGill University in 1898. Peterson was knighted in 1915.

8. Harold A. Wilson (1874-1964) was Professor of Physics at King's College, London, from 1905 to 1909, when he was appointed Macdonald Professor of Physics at McGill. It is clear from Rutherford's letter that Wilson was a serious candidate for the Directorship of the Physics Laboratories, since Cox (see note 9 below) was due to retire from this post in April, 1910. In the event, Wilson was *not* appointed Director and the post went instead to Howard T. Barnes (1873-1950), who had progressed from the post of Demonstrator of Physics on Rutherford's departure in 1907. Barnes had earlier collaborated with Rutherford in experiments relating to the heat output of a radium source, and four joint papers on this subject were published in 1903-05. Barnes remained at McGill until 1919, but Wilson stayed only three years: in 1912 he was appointed Professor of Physics at Rice Institute in Houston, Texas, where he remained (except for a year at Glasgow University, 1924-25) until his retirement in 1947.

9. John Cox (1851-1923) was Professor of Physics at McGill from 1890 (when the Macdonald Physics Building was opened) until 1901 when he became Director of the Physics

laboratory. It was Cox who had recruited Rutherford for McGill in 1898.

10. The British Association for the Advancement of Science held its 1909 annual meeting in Winnipeg, Manitoba, Canada, August 26-September 1. Rutherford was present and gave the opening address in the Mathematics and Physics Section on August 26. Rutherford's subject was "Atomic theory" and, while he was not yet ready to speak openly of the atomic nucleus, the trend of his thoughts is clear. (Rutherford's talk is given in full in *Nature*, 81 (1909): 257-63.) Eve was also present at the meeting and read a paper on secondary radiation produced by γ rays in different metals. However, no reference to a meeting of the two men in Canada appears in their correspondence.

R-10

17 Wilmslow Road
Withington
Manchester
Oct 28 1909

My Dear Eve,

I intended writing earlier but I have been up to my neck in work.[1] I don't know whether you heard that Dr. Boltwood's mother who was with him died of heart failure without warning when they had been here a week or so.[2] It was a very sad case for they had lived together all their days & were unusually devoted.

Boltwood has knuckled down to work again and we are in the midst of a determination of the rate of production of He[lium] by radium.[3] We have all been well and flourishing but I have been kept going.

Sorry to hear your radium source turned out a puzzle. It is extraordinary how fellows get fooled on a photographic plate.[4]

Re the mortgage, I have decided on mature reflection that there is too much risk for one not on the spot in mortgages on "town" property.[4] I have come to the conclusion that 4 percent & good sleep is better than 10 and restless nights. Sorry to have troubled you but I find my sense of prudence develops rapidly when I get in this land.

I am glad of and like Wilson.[6] Give him my kind regards.

There is not much news to record here but the suffragettes and the budget keep us from falling asleep. Give my kind regards to the Pitcher's[7] & to Mrs. Eve.

Yours ever

E. Rutherford

R-10 Notes

1. It is unclear whether or not this letter is in reply to a letter from Eve no longer extant. The two men had met two months earlier at the British Association meeting in Winnipeg (see Note 10 of letter R-9) but Rutherford's comment on Eve's radium source (Note 4 below) gives the impression that Eve had written in the interval.

2. Bertram Boltwood (see Note 6 of letter R-9) spent the 1909-10 academic year with Rutherford in Manchester. The date of his arrival in England is unclear, but it must have been early in August 1909, before Rutherford departed for the British Association meeting in Winnipeg which opened on August 26 (see Note 10 of letter R-9). (In a letter to Boltwood, date 1 July 1909, Rutherford apologizes for his inability to accommodate the Boltwoods on their arrival, because other guests were due to stay at the Rutherford home at the time. See Badash. *Rutherford and Boltwood*, p. 219.) Presumably Boltwood's mother died *after* Rutherford had left for Canada, otherwise Eve would have heard about it directly from Rutherford. In an editorial comment Badash (Badash. *Rutherford and Boltwood*, p. 200) states that "Boltwood's mother died a few months after their arrival in England" but this appears to be in error. Rutherford's direct statement to Eve "they had been here a week or so," must be more accurate.

3. A short paper on this subject was read to the Manchester Literary and Philosophical Society in the autumn of 1909: E. Rutherford and B. B. Boltwood "Production of Helium by Radium." *Manchester Lit. & Phil. Soc., Mem.*, IV, 54, 6 (1909): 1-2. The rate of production of helium was found to correspond to 163 mm^3 per gram of radium per year. However, the definitive papers on helium production were not published

until 1911, well after Boltwood had returned to Yale: B. B. Boltwood and E. Rutherford "Die Erzeugung von Helium durch Radium." *K. Akad. Wiss., Wien, Sitzungsberichte*, 120, 2a (1911): 313-36); E. Rutherford and B. B. Boltwood "Production of Helium From Radium" *Phil. Mag.* Ser. 6, 22 (1911): 586-604. Using more accurate measurement techniques than in the earlier experiments, the rate of production of helium from 1 g of radium, in equilibrium with its decay products, was amended to 158 mm^3 per gram per year. This value agreed well with the figure of 156 deduced by Rutherford and Geiger by counting the number of α-particles emitted by radium.

4. The meaning of this statement is unclear. Its interpretation depends on whether we accept the date of Eve's next letter, E-9, as February 1910 or – as seems more probable, see Note 1 of E-9 – alter the date to February 1911. In the former case, the reference here is to a misunderstanding in the summer of 1909, when Eve had presumably written from England to his colleague Howard Barnes in McGill, requesting the latter to send a particular radium source to Manchester so that its strength could be determined in Rutherford's laboratory. Presumably this was done and the result transmitted to Montreal – with the startling conclusion that the source strength was only about one-tenth of its expected value. The solution to this puzzle was given later, in February 1910 if we accept the written date for letter E-9. If, however, E-9 was actually written a year later, then this explanation of Rutherford's present comment breaks down and we have to postulate another problem with one of Eve's radium sources, perhaps mentioned in a missing letter to Rutherford written in September 1910, after the latter had returned to England following his visit to Canada in August. Whichever date we accept for letter E-9, however, there is no explanation of Rutherford's reference here to a photographic plate.

5. A memorandum in Eve's handwriting, dated 6 December, 1937, at the bottom of a letter of Eve to Rutherford, written in 6 December 1925, begins as follows: "E. R. bought 21,000 sq ft on slopes of West Mountain, Cedar Crescent, Cote des Neiges, Montreal meaning to build a house here; but he moved to Manchester and I bought the land and had a mortgage on it $2500 at 5%." The land area quoted by Eve in his 1937 memo was in error. In letter E-12 Eve states explicitly that Rutherford bought 24,000 sq ft at 15 cents/ft^2, or $3600 in all. Côte des Neiges at that time was well outside the City of Montreal, although it has long since become part of Metropolitan Montreal. This purchase price agrees with that stated by Rutherford in letter R-11. Nowadays, Cedar Crescent links with Queen Mary Road, a main east-to-west thoroughfare. Eve's 1937 memo implies that Eve bought the land at the time of Rutherford's departure from Montreal in 1907, but this was not the case. At the time of letter R-10, October 1909, Rutherford still owned the land but was obviously thinking of selling it. It seems that he had two practical alternatives: either to find a private buyer, such as Eve, and to provide the buyer with a mortgage; or to sell to a property company in the expectation that the resulting income would be higher. Hence the dilemma expressed in this letter. However, Eve does not appear to be a prospective buyer at this time and, indeed, the sale to Eve was not made until June or July 1911. A significant part of the subsequent correspondence between Rutherford and Eve in the next two years, as set out in the present article, is concerned with the sale of Rutherford's property in Côte des Neiges and the related financial problems, with Eve acting as the "man-on-the-spot" providing advice when so requested.

6. As stated in Note 8 of letter R-9, Harold A. Wilson had recently been appointed Macdonald Professor of Physics at McGill. Rutherford is here expressing his satisfaction with the appointment, and this sentence carries a further implication (see Note 1 above) that Rutherford is replying to a "missing" letter from Eve.

7. The Pitchers were Eve's sister-in-law Harriet and her husband; Rutherford knew both very well; see Note 11 of letter R-1.

E-9 Eve to Rutherford

McGill University
The Macdonald Physics Building
6 February, 1910[1]

This brief letter is concerned almost entirely with the problem of one of Eve's radium sources which had earlier been measured at Manchester. This source may have been the subject of Rutherford's comment three months earlier in letter R-10: the source had "turned out a puzzle."[2] Eve now states that, in an earlier letter

written from England, presumably during the summer of 1909, he had given misleading instructions to his colleague Howard Barnes at McGill. As a result, Barnes had sent the wrong source to Manchester: "He sent *one* of the tubes which Bronson[3] cooked up and I meant him to send the other; sorry my fault. In my book I have it as .26 mg and you say it is .264, so it is most satisfactory. I had meant to send 2.7 mg."

The letter concludes with a short warning, relating to Rutherford's land near Montreal (see Note 5 of letter R-10): "N.B. don't sell your lot for *less* than 50¢ a foot cash, this year."[4]

E-9 Notes

1. This letter is designated E-9 and is placed in this position in the series because the date in Eve's handwriting is clearly 6 February 1910. However, a strong (albeit not conclusive) case can be made for believing that '1910' was a 'slip-of-the-pen:' Eve should have written 6 February nineteen-*eleven*. The case for re-assigning the letter to 1911 is as follows:

a) Eve wrote to Rutherford on 5 January 1911 (letter E-14 in this article) enquiring about a radium source sent to Manchester from Montreal by Dr. Barnes during the summer of 1910. It is unlikely – but not of course impossible – that the circumstances (Eve in England arranging the source transfer with Barnes in Montreal) were repeated exactly, two years in succession.

b) The dates of letters E-14 (5 January), R-13 (21 January, E-9) 6 February) and R-14 (15 February) are consistent with the known transit time for mail between the two cities (see Note 1 of letter R-12), if each man replied to the other within two or three days, which is likely in view of the subject matter of the correspondence. Indeed, in letter R-13, Rutherford states "I received your letter yesterday."

c) Rutherford's opening statement in letter R-14, "I am glad the measurements of the small standard check up very well with the old values," makes good sense if he is replying to E-9 *written nine days earlier.* Similarly, Rutherford's comment at the end of R-14, referring to the rise in value of his property in Montreal and "I trust that your remark at the end of your letter will be realised," makes perfect sense in relation to Eve's advice in E-9, "don't sell your lot for less than 50¢ a foot," but no sense at all in relation to E-14, written on 5 January, 1911. To explain R-14 we have to postulate a missing letter between E-14 and R-14; E-9 fits this role perfectly.

d) Eve's note to Rutherford about the value of his land is surprising if written in February 1910. It is true that, in October 1909 (R-10) Rutherford refers to the question of mortgaging his property and, in September 1910 (R-11), to Eve's statement of "some time ago" concerning the rising value of the land. Nevertheless, by February 1910 there had been virtually no discussion of this problem in the Rutherford-Eve correspondence. A curt, single sentence admonition therefore seems out of place at this time. However, the correspondence in the autumn of 1910 (E-11 to 13, R-11 to 13) is full of this problem, so that a short reference to the matter in February 1911, is entirely in context.

2. The possible link with letter R-10 applies only if the 1910 date of E-9 is accepted. If, however, E-9 was written in February 1911, as suggested in Note 1 above, then Rutherford's October 1909 comment in R-10 is no longer relevant and another explanation must be sought. There is no evidence in Eve's letters or published papers of a problem with a radium source in 1909, specifically in connection with a photographic plate (see Note 4 of R-10), but it could have been a minor difficulty which did not merit a written record.

3. Howard L. Bronson was a physicist who joined Rutherford's team at McGill in 1904, after obtaining his PhD at Yale. He published a number of papers on various aspects of radioactivity but failed to achieve a lasting reputation. Bronson left McGill in 1910 to become a Professor of Physics at Dalhousie.

4. However, when Eve himself purchased the land from Rutherford in 1911, the price was considerably below 50 cents: see letter E-18.

R-11

17 Wilmslow Road
Withington
Manchester
Sept 30 1910

My dear Eve,

Just a short letter to you on a business matter. I have received an offer for my section[1] through Baillie from an unknown client (whom I guess is Hyde) for $6000 stock in the Pine Avenue Apartments[2] which has so far paid 5% on the stock.

You told me some time ago that property about my section was rising steadily in value. I would be very much obliged if you give your opinion on the offer. You remember I paid about $3600 for the property. It is very difficult for me to form any idea of the value of the stock mentioned. 5% does not seem to me much of a yield on new property of that type. Would it be possible at any time to realise on such an investment without a great sacrifice?

I know it will give you a good deal of trouble but if you can collect information* on the subject, I would be greatly obliged.

I have written to Baillie without giving a definite decision but rather indicating that I don't care much for the stock proposition but would like an alternative.

I returned to Manchester in a foul state with bad cold & a face with a bulge so that my wife hardly recognised me. Fortunately, I have got rid of my ailments rapidly. I expect the strain of the Congress[3] was more than my constitution could stand.

Work starts in full swing next week. I go up to Dundee next week to open a new Electrical Laboratory.[4] It impresses the fact on me that I am now regarded as elderly and respectable.[5] Give my kind regards to Mrs. Eve and hope my god-child flourishes. Give me a reply as soon as you can.

Yours ever

E. Rutherford

* *Note added in margin opposite asterisk*: I have received statement of receipts and expenditure for the last three years. It seems sound as far as it goes.

R-11 Notes

1. "My section" refers to the land owned by Rutherford on Cedar Crescent, Côte des Neiges (see Note 5 of R-10). I am unable to identify either Baillie or Hyde.

2. Pine Avenue Apartments. This is a block of about 30 apartments, still in existence, on Pine Avenue West, between Durocher Street and Oxodon Street (now Aylmer) quite close to the McGill campus. *Lovell's Directory of Montreal* for 1910 gives the street number as 276 but it has since been renumbered as 456.

3. The Congress referred to was the (First) International Congress of Radiology and Electricity, held in Brussels, 13-15 September, 1910. Both Rutherford and Eve participated in the Congress; indeed Rutherford played a very active role, as is clear from the report in *Nature*, 84 (Oct. 13, 1910): 478-79 contributed by Walter Makower, a physicist in Rutherford's laboratory in Manchester. Another formal report was given by Boltwood in Science, 32 (2 Dec. 1910): 788-91. However, of more interest, and certainly more revealing of the dissatisfaction of the participants with the poor organization of the Congress, is Rutherford's informal account in a long letter to Boltwood dated 27 September, 1910: Badash. *Rutherford and Boltwood*. pp. 224-28.

Probably the most important outcome of the Congress was the setting up of an International Radium Standards Committee chaired jointly by Rutherford and Mme Curie. The Committee was charged with defining a unit of radioactivity and preparing an International Radium Standard (see Figure 2 of this article.) Rutherford outlined the tasks of the Committee in a separate report: E. Rutherford "Radium Standards and Nomenclature," *Nature*, 84 (Oct. 6, 1910): 430-31. Eve was a member of the Committee, representing Canada, but was unable to attend the second meeting in Paris in March 1911.

4. The laboratory referred to was the Peters Electrical Engineering Laboratory at University College, Dundee, Scotland.

5. "Elderly and respectable." Rutherford celebrated his 39th birthday a month before writing this letter!

E-10/E-11/E-12 Eve to Rutherford

Montreal,
8 October, 1910 (E-10)
10 October, 1910 (E-11)
16 October, 1910 (E-12)

These three letters, written within a span of nine days, will be considered together.

In the first letter (E-10) Eve mentions that, after an excellent summer in England, he and his family are moving into a new home in Outremont.[1] He asks Rutherford for a testimonial to support his application for the Chair of Physics at Bristol University.[2] Eve then makes a passing reference to the Brussels conference, i.e. the International Congress on Radiology and Electricity.[3] He found that "...the conference, and the meeting so many interesting men, have had a refreshing and stimulating influence."

The second letter (E-11) is concerned entirely with the question of the value, and possible sale, of Rutherford's land on Côte des Neiges. Eve notes that land values have risen remarkably since he left Montreal for England in May and that "Gordon[4] is selling land on the mountain above yours but nearer the city[5] at 50 cents a foot. I think yours will be worth 50 cents in 2 or 3 years time." Eve advises Rutherford not to accept less than 25 cents a (square) foot, paid in cash. He also advises against the Pine Avenue stock offer (letter R-11), which he considers to be worth no more than $4500. Eve then offers to buy the property himself, for $4500, "cash down."[6]

Eve mentions that he and his family have settled in their house in Outremont and "we all like it very much. Unfortunately, we have only a sure lease for 1 1/2 years." Eve adds that land at Outremont is 70-75 cents now, and "Montreal is going to be a desparate [*sic*] place for professors to live in."

Letter E-12 is entirely concerned with the sale of Rutherford's land. Eve states that C. Gordon[7] had given him some information (derived from Baillie) about the Pine Avenue Apartments Company. The shares are worth 75% of their par value and shareholders receive 5%. Eve advises Rutherford to ask for $8000 Pine Avenue stock or $6000 cash. "If you get that, he [Gordon] says sell now....My own view is that a road will get through and in a few years it will be worth 50 cts ($12,000). Gordon was not quite so sanguine."

E-10/E-11/E-12 Notes

1. Outremont is the area (now a separate municipality within the Montreal Urban Community) lying to the north-east of the "mountain" (Mont Royal) which gives Montreal its name. In the period under consideration, Outremont was being developed as a highly desirable suburb – hence the high price of land, as Eve notes in letter E-11.

2. Eve did *not* obtain the desired appointment. The Bristol post is discussed further in Note 4 of letter R-13.

3. See Note 3 of letter R-11.

4. The identity of 'Gordon' is uncertain. The C. Gordon referred to in letter E-12 (presumably the same person) may well have been a relation of the G. Blair Gordon who features in Eve's memo (referred to in Note 5 of letter R-10) as follows: "The mortgage was in due course paid off and the land sold by me to Lady Gordon whose son G. Blair Gordon has built a beautiful house upon it."

5. "Land above yours but nearer the city." Rutherford's lot was located on the northern slopes of "West Mount," the hill to the west of Mount Royal, with the city of Montreal lying to the south-east. Hence the land to the south of Rutherford's could well be higher in elevation but nearer the city.

6. Eve's offer of $4500 is puzzling, because he has just advised Rutherford not to accept less than $6000, i.e. 24,000 ft^2 x $0.25/$ft^2$.

7. See Note 4 above.

R-12

17 Wilmslow Road
Withington
Manchester
Oct 20 1910

My dear Eve,

I received your letter about the Bristol post.[1] I shall send you a testimonial in a day or two as soon as I get time to attend to it and will in any case write to the Bristol people to say that I am willing to give them any information they require about you, in case your testimonials are late. I thought the time of entry had closed long ago but from what you say apparently not. I will send you a reference that can be used by you generally for any post for which you apply.

I am wondering whether you received a letter written about three weeks ago by me and addressed to Hutchinson St.[2] I wanted your opinion as to an offer I received from Bailey for my Côte de Neige[3] property. The offer is $6000 stock in the Pine Avenue Apartments which he included documents to show had been paying 5% for the past three years. I wrote to Bailey to ask for an alternative cash offer but I would like your opinion on the matter. The difficulty is of course that I know nothing of the Pine Avenue Apartments & whether their stock is a good investment. Have you any idea of its selling value? I gather indirectly that Hyde is Barcley's client,[4] which makes me wonder a little. I shall be very much obliged if you will give me your mature opinion on the matter in relation to the probable value of my property in the immediate future. Please regard this as confidential.

Yours ever

E. Rutherford

R-12 Notes

1. See letter E-10, written 12 days earlier on October 8. It is clear that the mail service between Montreal and London, by surface carrier, was quick and efficient.
2. See letter R-11 (30 September 1910).
3. Both Baillie and Côte des Neiges are misspelt.
4. I am unable to identify Barcley.

E-13 Eve to Rutherford

860 St. Catherine Road,
Côte des Neiges, Montreal
4 November, 1910

Eve begins by thanking Rutherford "for the excellent testimonial [for the Bristol chair] which you were kind enough to send me." However, Eve professes that, whatever the verdict in "the Bristol affair" he will be content.

The rest of this short letter is concerned with Rutherford's property on Côte des Neiges. Eve says that he has visited the area (the "West Mountain") and found that roads have been cut over Gordon's property there. "He has already sold half his lots at ¢ 50 a sq. foot." Eve thinks that Rutherford's land is worth 35 to 40 cents, "and I can't see why it is not worth as much as that on the top of the mountain a few yards behind yours." He predicts that, once a road gets past Rutherford's lot, the land will be worth 50 cents and should then be sold, "for things are apt to stick there."

Eve concludes by remarking that he and his wife like their new home (in Outremont) and wish they were owners, not tenants.

E-14 Eve to Rutherford

McGill University, Montreal,
The Macdonald Physics Building
5 January, 1911

Eve begins by referring to a "specimen" (presumably a radium source) which had been sent to Manchester from McGill during the previous summer. He enquires whether Rutherford has been able to compare the McGill source with the Manchester radium standard and, if so, if the source could now be returned.

Most of this letter comprises a discussion on secondary γ rays. Eve refers to the recent paper by Florance,[1] a member of Rutherford's group in Manchester. Florance showed that the secondary radiation (i.e. scatter) produced when γ rays interact with matter show a gradual softening (decrease in penetration power) as the angle of deflection from the original source increases.[2] Eve notes that Florance's secondary rays were more penetrating than his own,

"working with a small quantity of Ra. I may have got some β rays mixed with my secondary γ . It must have been a relatively easy game with 200 mg."[3]

Eve goes on to wonder "if he [Florance] did not find results more simple than they really are," and quotes some of his own experimental results with γ rays transmitted through sheets of iron or lead and then through a reversible lead-aluminum filter. The intensity of the transmitted radiation depended on the direction of the filter, i.e. Pb-Al or Al-Pb.[4]

Eve goes on to say that he is "trying to verify or upset Bragg's view that γ rays do not ionize directly, they produce β rays which do the ionizing."[5]

Finally: "Matters are going well at McGill except that they are hard up for cash," and "I have heard nothing as to the Bristol appointment, they don't seem in haste."

E-14 Notes

1. D. C. H. Florance, "Primary and secondary γ rays," *Phil. Mag.* Ser. 6, 20 (Dec. 1910): 921-938.

2. Florance's results (Note 1 above) were quite correct. This was, in fact, the first observation of "Compton scattering," named after Arthur H. Compton (1892-1962), the American physicist who studied the production of secondary radiation by X rays and in 1922-23 proposed a quantum theory to account for the observed effects. Compton acknowledged the correctness of Florance's earlier observations, which in 1910 could not be adequately explained. (For an excellent biographical sketch of Compton, see del Regato. *Radiological Physicists.*)

3. Eve's experiments were carried out with about 14 mg of radium bromide.

4. A. S. Eve, "Primary and Secondary Gamma Rays." *Trans. Roy. Soc. Canada*, Ser. III (1909): 36-47 *Phil. Mag.* Ser. 6, 19 (Aug. 1909): 275-91. (See also letter E-3.) Unfortunately, Eve's experiments were set up in such a way that he was simultaneously observing three different effects – absorption, scattering and production of secondary characteristic radiation. It is no wonder that his results were difficult to interpret.

5. William Henry Bragg (1862-1942) was referred to earlier (letter E-3, 24 Nov. 1907) in connection with his theory that γ rays comprised a "neutral pair," i.e. a β-particle associated with an α-particle. At that time Bragg was Professor of Physics at the University of Adelaide in Australia. In 1909 Bragg was appointed Cavendish Professor of Physics at the University of Leeds in England. He is best known for his pioneering work in X-ray crystallography, for which he was awarded the Nobel Prize in Physics in 1915, jointly with his son William Lawrence Bragg.

The theory to which Eve now refers was put forward by Bragg in September 1910: W. H. Bragg "The consequences of the corpuscular hypothesis of the γ and X rays, and the range of β rays." *Phil. Mag.5*, Ser. 6, 20 (1910): 385-416. Bragg has modified his earlier theory and now regards X and γ rays as particles having the same mass as the electron but zero charge. Bragg states that this view is based on the theory of J. Stark [*Phys. Zeit.*, 10 (1909): 902-16; 11 (1910), 24-31 and 179-87] that an X ray is "a bundle of energy travelling without alteration of form."[4] Stark's theory, in turn, was based on Max Planck's quantum theory of energy, developed in 1900. Bragg's 1910 paper attempts to demonstrate no less than eight consequences of the corpuscular hypothesis of X and γ rays, one of which is the inability of these rays to ionize directly, the real agents being the "secondary cathode and β rays." Bragg was right: ionization by X and γ rays is indeed an indirect effect arising from secondary electrons. However, nowadays the "bundle of energy" (called a *photon*) is considered to have zero mass as well as zero charge. The energy of the photon is proportional to the frequency of the radiation concerned, as determined by experiments in which the behaviour of the radiation can be interpreted on a wave theory.

R-13

Letter handwritten by an amanuensis, probably Mrs. Rutherford

17, Wilmslow Road
Withington
Manchester
Jan 21st 1911

My dear Eve,

I received your letter yesterday, and will send on your radium preparation very soon.[1] I had it ready to send three months ago; but the book with the final number in has been mislaid, and we probably will have to measure it again.

I have heard nothing definite about Bristol for some time. It is a funny business altogether, and I am not taking any part in it. They picked four men out of the candidates some four months ago, and then decided that none of them were good enough for them. Since then they have been trying some more senior people, and I think they have been unsuccessful and go back to their first discard. I wrote to them to say that I would be glad to give any further information they required in regard to yourself; but they never even bothered to ask. Bragg[2] tells me they did not reply when he wrote. Altogether the whole business seems to be run in a funny manner, and I have heard wierd stories as to their way of interviewing candidates. I think it quite likely they may take Porter[3] of University College, London, after all.[4]

As to other matters I had an offer or two for my property in Montreal; but I did not think they were good enough, and I prefer to hang on for a bit.

Matters scientific are going on quietly. We have several interesting pieces of work which I hope will soon be completed. I may tell you confidentially (for the paper is not yet published) that Simpson and Wright (Scott's Expedition) on their voyage to New Zealand have found the active deposit over the ocean in the neighbourhood of the Equator was very small compared with that on land, and there were rapid variations with the latitude. This is exactly what we all expected if we could get well away from land. He still got quite a considerable ionisation in the air; but I do not lay very much stress on that. I daresay the R[oyal] S[ociety] will publish the paper before long.[5]

Among other things I have been interesting myself in devising a new atom to explain some of the scattering results.[6] It looks promising, and we are now comparing the theory with experiments.

You, no doubt, have seen Mme Curie's book.[7] It is quite good and sound but rather much of it and no Index, so that it is very difficult to find things. They have asked me to review it in Le Radium.[8]

I am glad you like your new quarters round the mountain. I saw McBride[9] a day or two ago in London and he gave me some Montreal news. Bovey[10] was at the R[oyal] S[ociety] meeting. He looked thin; but I understand is very much the same as he was last year, and keeps fairly well if he does not work.

I will get the radium compared accurately and send it along as soon as possible.

Yours ever

E. Rutherford

P.S. added by Rutherford in his own handwriting. Give my remembrances to your wife & my own responsibility whom I hope does justice to his god-parent.

R-13 Notes

1. Rutherford is replying to E-14, written by Eve 16 days earlier. However, there is some doubt as to the identity of the radium preparation: it was probably the source to which Eve refers in letter E-9, assuming that this letter was written in February 1911 in spite of its nominal date, February 1910 (see Note 1 of E-9.)

2. Bragg: see Note 5 of letter E-14.

3. Alfred W. Porter was an Assistant Professor of Physics at University College, London at the time. His specialty was the physics of fluids and fluid flow. He was *not* appointed to the Bristol post: see Note 4 below.

4. Rutherford was right to describe the appointment process as a "funny business." In fact, nothing further was to be heard of this matter for over two years. Then, on March 20, 1913, *The Times* of London reported that a

question had been asked the previous day in the House of Commons concerning the Chair of Physics at Bristol University, which had been vacant since 1910. The questioner suggested that the Chair had been offered to physicists of repute, all of whom had declined on the ground that the post offered insufficient security of tenure. The following day (Mar. 21) *The Times* carried a letter from Sir Isambard Owen, the Vice-Chancellor of Bristol University, refuting this allegation: "There is not the smallest foundation for such a suggestion.... Our chair of Physics is at present held vacant for reasons which I need not enter into.... It has neither been offered to nor refused by anyone."

This, however, was not the end of the matter. Two weeks later, on April 3, 1913, *The Times* published a long letter from Maurice A. Gerothwohl dealing with various aspects of the governance and administration of the University. One paragraph was devoted to the vacant Chair of Physics. Gerothwohl stated that the post had been advertised in the autumn of 1910 at a salary of £600, as a result of which numerous applications had been received and considered by Senate. The Senate subsequently informed the [largely lay] University Council that it was unable to recommend an appointment since no candidate of sufficient merit had applied. The Vice-Chancellor had subsequently requested Council to raise the salary to £800 and to allow him to negotiate with individual physicists, both of which proposals were denied by Council. The writer accepted Sir Isambard's statement that the Chair had not been formally offered to anyone, but challenged the Vice-Chancellor to deny that "at least one London physicist of repute was approached and sounded as to the terms on which he might be induced to consider the Chair." Gerothwohl stated that one of this candidate's main conditions for acceptance was exemption from the 2-year probationary period attached by Bristol University to all academic posts. This was what was meant by the lack of security of professional tenure. The correspondence ended on April 5, when the Vice-Chancellor denied Gerothwohl's allegations in a brief and uninformative letter. Thereafter *The Times* maintained silence on the subject of the Chair of Physics at Bristol University.

5. G. C. Simpson and C. S. Wright "Atmospheric Electricity Over the Ocean," *Proc. Roy. Soc.*, 85A (May 10, 1911): 175-99.

6. This is an early reference by Rutherford to his new theory of the nuclear atom. It is not, however, the *earliest* reference since Rutherford had written to Boltwood on this subject on 14 December, 1910 (Badash. *Rutherford and Boltwood*, p. 235). Rutherford gives the impression in these early letters that it will be months, if not years, before the new theory can be announced publicly. In fact, however, within a few weeks he had outlined the theory to members of the Manchester Literary and Philosophical Society at a meeting on March 7, 1911. [*Proc. Manchester Lt & Phil. Soc.* IV, 55 (1911): 18-20] and the definitive paper was published in May 1911: E. Rutherford "The Scattering of Alpha and Beta Particles by Matter and the Structure of the Atom," *Phil. Mag.* Ser. 6, 22 (1911): 621-29. However, it was not until 1913, when Neils Bohr gave the theory a strong mathematical basis, derived from quantum theory, that the nuclear model of the atom became firmly established.

7. Marie Curie, *Traité de radioactivité* (Paris: Gauthier-Vallars, 1910), 2v.

8. Rutherford's review of Mme Curie's book appeared very soon after this letter to Eve: *Le Radium*, 8 (Feb. 1911): 94-95. Rutherford published a similar review of the book in *Nature*, 86 (2 March, 1911), 1-3. As usual, Rutherford's most critical comments on the book were reserved for a letter to Boltwood, dated 14 December, 1910 (Badash. *Rutherford and Boltwood*, pp.233-37).

9. A. E. McBride was a professor of zoology at McGill. He had come to Canada from England on the same ship as Rutherford and, indeed, the two men had shared a cabin. Early in his stay in Montreal, Rutherford, McBride and Walker (a professor of chemistry at McGill) took rooms with breakfast at a house on Union Avenue, close to the McGill campus.

10. Henry Bovey was the former Dean of Applied Science at McGill. Rutherford had stayed with him on his arrival in Montreal in September, 1898, and the two men had jointly undertaken some contract research in Montreal in November 1898. In 1908 Bovey left McGill to become Rector of the Imperial College of Science and Technology in London, but retired a year later. Rutherford's concern for Bovey's health was timely: Bovey died in 1912.

R-14

Letter handwritten by an amanuensis, probably Mrs. Rutherford

17, Wilmslow Road
Withington
Manchester
Feb 15th 1911

My dear Eve,

I am glad that you find the measurements of the small standard check up very well with the old values. I had an idea that they must be one of the original small standards you employed.[1]

You will have seen Bragg's R[oyal] I[nstitution] lecture in 'Nature.'[2] It is quite interesting and, like all Bragg's things, very clear. I see a good deal of him in these days and find him a thoroughly good fellow.

You will be interested to hear that my general theory of scattering is working out very well; but I will not publish it for some time so as to get experimental verification. I think I shall be able to show that Crowther's paper in the [Proceedings of the] R[oyal] S[ociety] is completely wrong.[3] It reads like gospel; but I find I can explain the great majority of his results in a very different way, and one that I think is physically far more important. I will let you know as soon as I get the material in shape. Geiger is hard at work verifying some of the theoretical points which are really very interesting.[4]

I wrote to Baillie a short time ago to tell him that I was on the look out for a rise in the value of my property, and I trust that your remark at the end of your letter will be realised.[5] I feel it is somewhat of a blessing that Canada has not a tax on unearned increment.

Yours sincerely

E. Rutherford

R-14 Notes

1. This statement is meaningful only if Rutherford is replying to a letter of recent origin relating to a particular radium source. Letter E-9 fits this role if, as suggested in Note 1 of E-9, we postulate that it was actually written on 6 February 1911.

2. W. H. Bragg "Radio-Activity as a Kinetic Theory of a Fourth State of Matter," *Nature*, 85 (9 Feb. 1911): 491-94. In this semi-popular discourse, originally delivered at the Royal Institution, London, on 27 January 1911, Bragg examines the properties of α, β, γ and X rays and their interactions with matter. He concludes that they are all corpuscular in nature and mentions his theory (see Note 5 of E-14) that γ and X rays are un-charged β particles. The lecture ends on a prophetic note: "Many insist that my neutral corpuscle is too material, and that something more ethereal is wanted, for it appears that ultraviolet light possesses many of the properties of X and γ rays." However, Bragg draws back from this precipice, since he is unwilling to sacrifice the explanations of interference and diffraction provided by the wave theory. This was, of course, before von Laue's discovery of X-ray diffraction in 1912 and Planck's quantum theory had not yet been accepted in the field of radiation.

3. J. A. Crowther "On the scattering of homogeneous β rays and the number of electrons in the atom." *Proc. Roy. Soc.* 83A (15 Sept. 1910): 226-47. James A. Crowther (1883-1950) was a Fellow of St. John's College, Cambridge at the time, and later (1912) became a demonstrator and lecturer at the Cavendish Laboratory. Crowther's main appointment (1912-24) was that of Professor of Physics at the University of Reading. In the present paper, Crowther measured the scattering of a homogeneous pencil of β rays by various materials and concluded that (i) the ratio of the number of electrons in an atom to the atomic weight is approximately 3.0 for all elements and (ii) the positive electricity in the atom is distributed fairly uniformly through the atom. Both conclusions were wrong, as Rutherford makes clear.

4. This is, of course, a reference to Rutherford's nuclear model of the atom; see Note 6 of R-13.

5. As discussed in Note 1c of letter E-9, this comment is meaningful if the letter referred to is E-9 and we postulate that E-9 was written a year later (6 February, 1911) than the nominal date. Rutherford's comment certainly does not refer to letter E-14, (5 Jan. 1911) which is nominally Eve's previous letter.

E-15 Eve to Rutherford

This letter is undated and has hitherto been assigned to September 1911. It is number E-43 in the Cambridge University Collection, i.e., between E-42 (28 August 1911) and E-44 (17 October 1911). However, the evidence reviewed below[1] points to an earlier date, either late April or early May 1911. In any case, however, there is evidence that some correspondence, or other form of communication, must have occurred in the period between February 1911 (E-9, redated) and April-May 1911.

Apart from Eve's offer of $4500 in letter E-11 (11 October 1910), which Rutherford must have rejected, we have no record of negotiations between the two men leading to the agreed sale which is clearly implied in this and subsequent letters.

McGill University, Montreal,
The Macdonald Physics Building,
April (?) 1911

The letter opens with a statement that Eve has given Vaughan instructions "to go full steam ahead," presumably with the purchase of Rutherford's land. "I shall borrow £1000 at 4 or 4 1/2 per cent in England." Eve then asks whether Rutherford wants the £1000 to be paid in England, on the basis of £1000 = $4860 (in which case Eve would send an additional $140), or "do you want the money ($5000) all paid to your account in Montreal?" Eve adds that he does not mind which method is adopted, but "it does not pay to send money twice across the Atlantic."

The letter continues with a brief account of Eve's experiments for finding the attenuation coefficient of β rays "for thin Al foil with active deposit of RaC on it at 30 to 80 cm from a thin walled electroscope (see Note 1c below for references.) Eve gives a short table of values of μ (the attenuation coefficient) for various distances between the radium and the electroscope, but the dimensions of μ (e.g., cm^{-1}) are not stated and the numerical values are 10 times larger than those quoted in the postscript to the published paper, e.g. 0.13 (letter), 0.013 cm^{-1} (published). In any case, Eve concludes that "RaC must have a lot of slow β rays, easily cut off by glass." He adds that "there is a lot of work to be done with thin walled electroscopes." Eve ends the letter by stating: "I am publishing half of my work, and reviewing the second half, with some checking experiments."

E-15 Notes

1. The evidence for assigning this letter to April, rather than September, 1911 is as follows:

a) This letter contains details of Eve's intention to buy Rutherford's land in Montreal. The brief statement in letter E-16 (8 May 1911), "My brother has £1000 ready... for me in England" makes more sense if it follows, rather than precedes, the broader statement in the present letter.

b) This letter includes a brief description of Eve's measurements of the absorption in air of β rays from radium C, using a thin aluminum foil with an active deposit on it. This work is described in a postscript, dated May 1911, to a paper published by Eve in July 1911 (see 1c below). There would have been no point in describing this work to Rutherford in September when it had already been published.

c) At the end of the letter, Eve mentions that he will publish only half his work immediately since the other half requires further checking. This fits Eve's statement at the beginning of the next letter, E-16 (8 May 1911), that he has written two papers, and "I am quite content with my value for the total number of ions due to β rays." The paper on this topic was dated April 1911 and published in October 1911: E. S. Eve "On the Number of Ions Produced by the Beta Rays and by the Gamma Rays from Radium C," *Phil. Mag.*, Ser. 6, 22 (1911): 551-62. The other paper, referred to in Note 1b above, was published earlier, July 1911, although presumably submitted a little later: E. S. Eve "On the Coefficient of Absorption of Air of the Beta Rays from Radium C." *Phil. Mag.*, Ser. 6, 22 (1911): 8-17. The same text (minus only a diagram of the electroscope) was published in the *Transactions of the Royal Society of Canada*, Sec. III (1911): 59-67.

E-16 Eve to Rutherford

McGill University, Montreal
The Macdonald Physics Building,
8 May 1911

Eve announces that he has written up his work [on the properties of β rays] in the form of two papers.[1] He says that he is "quite content with my value for the total number of ions due to β rays."[2] Nevertheless, Eve suggests that "If one of your men is wanting an experiment he could do it better than I can, if you let him have an intense active deposit of radium on very thin Al foil."[3] Eve then briefly describes the principle of the experiment, which involves varying the distance between a radium C source and a thin-walled electroscope. He concludes this section on an apologetic note: "However perhaps you have other things on hand."

Eve gives the news that two colleagues and their families have sailed this week, presumably to spend the summer in England. The Eve family, however, will remain in Canada since "My mother is on the Atlantic and we are going to meet her at Quebec on Friday, and we are looking forward to her summer visit."

In the concluding paragraph Eve makes an indirect reference to his purchase of Rutherford's land in Côte des Neiges: "My brother has £1000 ready, or nearly so, for me in England, and I am awaiting instructions from you and Vaughan. No hurry."[4]

E-16 Notes

1. See Note 1c of letter E-15.

2. Eve concludes that the value of K, the number of ions per cm^3 per second at a distance of 1 cm from a curie of radium C, in air at atmospheric pressure, is 1.3×10^{11}. Hence the *total* number of ions produced in air by the β rays is approximately 4.0×10^{14} and the average number of ions made by one particle in an average flight from radium C in the atmosphere is about 1.2×10^4. This number is of the right magnitude but rather too small. The average energy of the β particles emitted by radium C (bismuth-214) is approx. 1.09 MeV and the average energy expended in creating an ion pair is 34 eV. Hence we would expect about 3.2×10^4 ion pairs for each β particle. The corresponding figure for the β particles from radium B (lead-214) is about 0.7×10^4 and it seems, therefore, that Eve made an insufficient correction for the radium B present in his source.

3 This is not the first time that Eve has stated that his experimental work is hampered by the low intensity of the sources available to him: see also Note 3 of letter E-14.

4. Eve's brother, Frank Eve, resided in England and clearly assisted in business matters in that country. To my knowledge, no correspondence between the two brothers dating from 1910-11 has survived, but there are two or three letters of a later date from Frank to "Stew" (short for Stewart, A. S. Eve's second name) which indicate a warm relationship. It is not clear whether Eve was to borrow the £1000 *from* his brother, or whether Frank was merely acting as an intermediary in securing the loan. It may also be noted that, at no point in this correspondence, is the total purchase price of the property explicitly stated. In his 1937 memorandum (see Note 5 of R-10), Eve speaks of a $2500 mortgage and it is also clear that Eve paid $5000 in cash, most of it borrowed in England (see above and letter E-15.) Hence the total price was $7500, which works out at 31.25 ¢/ft^2. The mortgage was apparently for a 20-year term at a fixed rate of 5 percent. One of the last letters from Eve to Rutherford, date 2 June 1930, encloses the standard $62.50 half-yearly interest payment and states "we hope to sell that lot in a year or two." On the other hand the cash loan was probably short-term and carried a lower rate of interest, 4 or 4 1/2 percent (see letter E-15).

R-15

Letter typed, but with several corrections and additions in Rutherford's handwriting

17, Wilmslow Road
Withington
Manchester
June 14th 1911

My dear Eve,

I received yesterday the cheque from your brother for the full amount, and am writing to Vaughan to close the transaction.[1] I think it likely you will probably make a good thing out of it if you are intending to speculate on it; but I was quite pleased to have got my share. As I wrote you, I was in no hurry about the matter of payment; and told your brother so; but it seemed to me that he was not aware that the transaction could not be completed until arrangements were made.

Geiger and partly myself have just made rather an interesting discovery. We find that the emanation of actinium has two α ray products, the second of which breaks up with a period of about 1/500 of a second.[2] Thorium emanation shows the same but with period considerably longer. We have got a number of experiments going to determine the period, and also on the question of the distribution of active deposit. I think we shall explain Russ's experiments quite simply on actinium.[3] The new products are charged to travel to the cathode. It is pretty certain that they are analogous to radium A in radium, and there is then a great similarity between the three active deposits. I have designed several interesting lecture experiments to show the effects.

I am going to Birmingham next week as External Examiner, and then to London to attend the Coronation[4] and Spithead Review.[5]

With kind regards
Yours very sincerely

E. Rutherford

R-15 Notes

1. This refers to the sale of Rutherford's land near Montreal to Eve: see letter E-15.

2. Geiger's work on the emanation of actinium was published shortly afterwards and had probably already been submitted at the time of this letter. [H. Geiger "The Transformation of the Actinium Emanation," *Phil. Mag.* Ser. 6, 22 (July 1911: 201-04.] Nowadays we would say that radon-219 (actinium emanation) decays by α-emission to polonium-215 (actinium A) with a half-life of 3.9 s (Geiger stated 4 s) and this in turn decays to lead-211 (actinium B), also by α-emission with a half-life of 1.83 ms (Geiger stated about 1/500 s, or 2 ms). Hence, two α-particles are emitted apparently simultaneously (actually in rapid succession), as Geiger had observed.

3. S. Russ "The diffusion of actinium and thorium emanations," *Phil. Mag.* Ser. 6, 17 (1909): 412-22. Sidney Russ was a Demonstrator in Physics in Rutherford's laboratory. His 1909 paper was concerned with the discrepancies in the various experimental measurements (based on gaseous diffusion) of the molecular weights of the emanations of radium, thorium and actinium. In 1901 Rutherford and Harriet Brooks had obtained a value between 40 and 100. Since then other workers had deduced values from 70 to 235, but mostly around 100. The theoretical value, on the disintegration theory, is about 220 for all three emanations. Russ compared the diffusion coefficients of the actinium and thorium emanations in air, under similar experimental conditions, and concluded that the molecular weight of thorium emanation was 1.42 times that of actinium emanation. This result was, however, quite wrong, the correct values of molecular weight being 220 (Th) and 219 (Ac), a ratio of 1.0046.

4. The Coronation of King George V and Queen Mary took place on June 22, 1911.

5. The Spithead Review took place on June 24, 1911, when the newly-crowned King reviewed the Royal Navy at Spithead Sound near Portsmouth on the south coast of England.

E-17 Eve to Rutherford

McGill University, Montreal,
The Macdonald Physics Building,
19 June 1911

This short letter is concerned with two subjects. The first topic is the purchase by Eve of Rutherford's land near Montreal. Eve says that he has received a copy of his brother's letter to Rutherford and it now seems that the £1000 needed to complete the deal (see letter E-16) was not available immediately: " ... I imagined that it was more liquid than his letter indicated." Eve asks Rutherford if he minds waiting and offers to sell some C.P.R. [Canadian Pacific Railway] stock if Rutherford needs the cash quickly, but "I expect you have fixed it up with my brother by now."

The second part of the letter refers to several papers in the recent literature, including that of Gray, a member of Rutherford's Manchester group, on "γ rays producing β rays." However, this must be a mistake on Eve's part, because Gray's 1911 paper, and one which followed early in 1912, are both concerned with the opposite effect, i.e. β rays producing γ rays.[1] Eve comments "It is quite an interesting point cleared up." Eve also commends Rutherford's new model of the atom:[2] "Your inside of the atom is very engaging.... I expect it is a tremendous wirligig affair really and not statical at all."

The letter concludes by noting that "Tory[3] is here today, looking prosperous" and "we are ... enjoying my mother's visit."

E-17 Notes

1. J. A. Gray "Secondary γ rays produced by β rays," *Proc. Roy. Soc. Lond.*, 85A (1911): 131-39.

2. See Note 6 of letter R-13.

3. H. M. Tory, formerly a Professor of Mathematics at McGill, was Principal of the University of Alberta in Edmonton (see letter E-3).

E-18/19/20 Eve to Rutherford

Montreal,
28 Aug. 1911 (E-18)
17 Oct. 1911 (E-19)
1 Nov. 1911 (E-20)

These three letters, written by Eve in the last months of 1911, will be taken together. There are no interleaving letters from Rutherford.

In E-18, Eve encloses a scientific note for publication, "if you think [it is] ... of sufficient public interest." Eve requests Rutherford to send the note to *Nature*, *Le Radium*, "or some such," adding "your blessing or opinion, or none, as you like." Eve comments that, while there is nothing original in the note, "the log. way of plotting makes matters clear."[1] However, seven weeks later, in letter E-19, Eve said he is glad that Rutherford did *not* forward the note for publication, since "it would have proved very flat compared with Geiger's full and interesting investigation."[2]

Continuing E-18, Eve refers to "the wonderful ionization experiments" of C. T. R. W. which indicate that β rays move through air "absolutely straight."[3] Eve states that his own experiments, which he illustrates with a sketch, show that β rays "go round a lead block all right ... of course they may be secondary not scattered, but in either case one would have expected evidence of one or the other in C. T. R. W.'s work."

To conclude E-18, Eve mentions that his mother is still in Montreal and he has taken her to visit New Brunswick and other parts of Atlantic Canada. Finally, "shall I pay Vaughan or send you a draft for interest half-yearly? It is $62.50 1 Nov. and 1 June."[4] Rutherford evidently chose the second option, since in letter E-20, dated 1 November 1911, Eve encloses a draft for $62.50, being "1/2 year's interest at 5% on $2500. Please send me a receipt to make sure of its safe arrival."

In letter E-19, after commenting on the fate of the scientific note which he had sent to Rutherford in August (letter E-18), Eve congratulates Rutherford on the "number & excellence of the papers from Manchester in the Oct. Phil. Mag."[5] He adds: "Please send me a copy of each paper, if you can remember about it, because they are so useful in preparing lectures, instead of running to the Library to the bound Phil. Mags."

Eve then comments on one of the October *Phil. Mag.* papers, contributed by Rutherford and Geiger, on the nomenclature of the radioactive emanations:[6] "I am glad that you have boldly altered the nomenclature to get the active deposits in line. In a short time things ought to be in fair shape for a more or less permanent account of radio-activity in your third edition."[7] There follows a more general comment: "The chief trouble in Physics seems now to reconcile the concentrated energy of γ or X or ultraviolet rays with electromagnetic theory and wave theory of light."[8]

E-20 is a very brief letter, no more than a covering note for the half-yearly interest payment due to Rutherford on 1 November (see above). Eve adds: "Am I not brave? I am going to lecture to the Chemical Soc[iet]y this afternoon on the extraction of the radioactive elements from ore."

The letter concludes on a note familiar to all Montrealers, (especially since two weeks earlier, in letter E-19, Eve stated that they were "revelling in an Indian Summer"): "Summer has fled and winter fairly jumped at us."

E-18/19/20 Notes

1. The note was never published and we do not know its title or nature. However, since Eve directly compares his paper with that of Geiger (Note 2 below), we may assume that the subject matter was an extension of, or related to, Eve's work on the number of ions produced by β rays from radium C (See Note 1c of letter E-15). The reference to "the log. way of plotting" presumably refers to the fact that an exponential absorption or transmission curve transforms into a straight line when the logarithm of the intensity of the radiation is plotted against the absorber depth or thickness.

2. H. Geiger and A. F. Kovarick "On the relative number of ions produced by the β particles from the various radioactive substances," *Phil. Mag.* Ser. 6, 22 (Oct. 1911): 604-13.

3. C. T. R. Wilson "On a method of making visible the paths of the ionising particles through a gas," *Proc. Roy. Soc. London*, 85A (June 1911): 285-88. Charles T. R. Wilson (1869-1959) was a Scottish physicist who was a Lecturer in Physics at Cambridge University. This short paper described the first functional "Wilson Cloud Chamber" (illustrated by a plate showing the passage of β rays through air), although the genesis of the invention dates back to 1896 when Wilson observed that dust was unnecessary for the condensation of water droplets in air since charged particles (ions) could act as nuclei for the condensation process. Wilson received the Nobel Prize in Physics in 1927.

4. From this statement we may conclude that the sale of the land was completed on 1 June, 1911.

5. The October 1911 issue of the *Philosophical Magazine* contained no less than five papers from Rutherford and his colleagues in Manchester. Rutherford was joint author of two of these papers: with Boltwood on the production of helium from radium (see Note 3 of letter R-10) and with Geiger on the nomenclature of radioactive emanations (see Note 6 below). Geiger contributed two other papers, on the ions produced by β particles (with A. F. Kovarich, see Note 2 above), and with J. M. Nuttall on the ranges of α particles from various radioactive substances (pp. 613-21). Finally there was a paper by H. G. J. Moseley and K. Fajans on radioactive products of short life (pp. 629-38). (Henry Moseley was one of Rutherford's most brilliant young physicists. His death on active service in Gallipoli in 1915 was a tragic loss to science.)

6. E. Rutherford and H. Geiger "Transformation and nomenclature of the radioactive emanations," *Phil. Mag.* Ser. 6, 22 (Oct. 1911): 621-29.

7. The "third edition" to which Eve refers is that of Rutherford's book *Radioactivity*, the first edition of which was published in 1904 by Cambridge University Press. A second and much larger edition appeared in 1905. The third edition was published in 1913 under the title, *Radioactive Substances and their Radiations*. According to Eve (*Rutherford*: 216) the change in title was necessary in order to "avoid certain difficulties about rights for translation."

8. Eve was right: this was indeed a major problem in the physics of the period. The reconciliation was achieved by the quantum theory of radiation. (see also Note 2 of letter R-14.)

Acknowledgements

I am grateful to Prof. Ferdinand Terroux, the first Curator of the Rutherford Museum at McGill University, for drawing my attention to the existence of the letters discussed in this article; to Mr. A. E. B. Owen, Keeper of Manuscripts at Cambridge University Library, for supplying photocopies of the letters from Eve to Rutherford; to the Syndics of Cambridge University Library for granting permission to quote from these letters; and to Dr. Robert Michel, of the McGill University Archives, for help in locating material. Finally, I wish to thank Professors Leo Yaffe and Fred Hedgcock for reading the manuscript of this article and making helpful suggestions.

Chronicle

Fontanus is devoted to a study of the rich treasures in McGill libraries, museums and archives. This section of the journal gives a brief description, in random order, of selected, important items acquired by McGill during 1988. These acquisitions were made possible largely by generous grants from donors, alumni, professors, private benefactors and special grants from the Social Sciences and Humanities Research Council of Canada in Ottawa.

The Department of Rare Books and Special Collections acquired the papers of Canadian poet Christopher Dewdney (b. 1951). Included are the manuscripts and related material of all of his books, correspondence from writers in Canada, the United States and England, and illustrative material such as collages and drawings.

The library of poet and former McGill law professor, F. R. Scott, was donated by Mrs. Marian Scott. The library is comprised of some 1,500 items and is rich in Canadian poetry, fiction and belles-lettres. Also included are English and American poetry, Québécois poetry, and books on politics and the social sciences.

Montreal poet Deborah Eibel donated manuscript material and correspondence relating to her collections *Streets Too Narrow For Parade* and *Kayak Sickness*.

Dr. J. F. Meakins donated his collection of 59 books by Rudyard Kipling as well as a small collection of other English literary books.

The estate of Dr. J. B. Stirling of Montreal donated 82 books dating from the 18th to the 20th century.

Dr. Lawrence Lande continued to enrich our collections with the donation of several books relating to William Blake and a leaf from a 1492 *Biblia latina cum postillis*.

The Department acquired the recent papers of Canadian poet Raymond Souster (b. 1921), including the manuscripts of several poetry collections, much correspondence, and a scrapbook of clippings and reviews from the 20s and 30s.

A small batch of manuscripts and letters by Canadian poet Milton Acorn (1923-1986) was acquired. This material dates from the late 1950s and early 1960s, when Acorn was beginning to establish himself as an important literary figure.

A group of letters and manuscripts by Stephen Leacock was acquired at a Sotheby's auction in London with generous financial assistance from the Social Sciences and Humanities Research Council. This material related to submissions made by Leacock to the English magazine *Answers*. Several individual Leacock letters were also purchased to add to the extensive holdings of Leacock material in the Department.

Two bound volumes of watercolour drawings of wildflowers by Montreal artist John Hugh Ross were acquired. These date from 1890-91 and are unpublished. They are accompanied by two small manuscripts in which the flowers are named and described.

McGill history professor Philip Longworth donated a manuscript on Russian laws written in English ca. 1600.

The Blackader-Lauterman Library of Architecture and Art acquired the *Marburger Index*, a photographic and descriptive inventory of Art in Germany. The *Marburger Index* consists of approximately 10,000 microfiches and covers close to one million works of art. Based on the so-called ICONCLASS System, the *Marburger Index* is the most ambitious iconographic inventory in existence today.

In July 1988, Blackader-Lauterman Library of Architecture and Art was awarded a $28,000 grant by the Social Sciences and Humanities Research Council of Canada (SSHRC). The grant was given to purchase additional antiquarian and foreign material in the area of Byzantine and Medieval Art, in which this library is particularly strong.

In December 1988, Blackader-Lauterman Library of Architecture and Art received a major donation for its Canadian Architecture Collection from a distinguished McGill graduate, architect Arthur Erickson. The collection contains selected Middle East projects of Mr. Erickson, including the Etisalat Tower in Abu Dhabi, Al-Ain University Competition, Madinah Residential Project, Islamic University of Madinah, Technical University of Saudi Arabia, King Faisal Air Force Academy and Mosque, the Abu Nuwas Conservation Development Project in Baghdad and the Fintas Town Centre in Kuwait.

Through grants from SSHRC, the Marvin Duchow Music Library has established an archive of microforms which will contain all of the extant sources of sacred and secular Renaissance vocal music. The 1988 grant concentrated on the acquisition of the complementary manuscript sources in microform. The films will provide direct support for large-scale projects in the performance practice of Renaissance music, that is, the collection and collation of variant readings of individual motets. This research will form the basis for a series of publications devoted to variants in motet sources and, in turn, these publications will generate scores used for performance and commercial recording projects.

From Mr. Talbot Johnson, we acquired as gifts two interesting 18th century works:

Auguste Calmet. *Dictionnaire historique et critique de la Bible*. Paris, 1730. 4 volumes folio.

Bernard Picart. *Cérémonies et coutumes religieuses de tous les peuples du Monde*. Amsterdam, 1741. 7 volumes folio.

May Cutler, Tundra book publisher and the Mayor of Westmount, Quebec, donated a collection of books and newspapers on the Quebec Independence Movement and the October 1970 crisis.

Professor Robert W. Stevenson donated some 600 books on world religions with emphasis on Buddhism and Hinduism.

Dr. Hans Möller, Research and Development Librarian, donated a collection of 151 books of classical fiction in Danish and Swedish.

The late Guy Glover of Hudson, Quebec, donated a copy of *Orchidaceae* published by Bourton Press in 1976. This volume is number 25 of a limited edition of 600.

Professor Lewis Pyenson donated an important collection of "Einsteiniana and history of modern physics."

Mr. John Mappin donated a copy of Stephen Leacock's *Humour and Humanity*, London: Thornton Butterworth, 1937 (proof copy with full-page presentation inscription to Norman Friedman dated November 9, 1937).

Professor P. F. McCullagh gave the library a valuable collection of some 200 books in the field of classics, mostly books by Greek and Roman writers as well as literary criticism and history of the Ancient World.

Mr. John Black of the Marvin Duchow Music Library donated a collection of 292 long-playing records to the Marvin Duchow Music Library.

Several major microform collections were purchased as regular library acquisitions:

Information Control and Propaganda; the Records of the U. S. Office of War Information, Parts I-II, 1942-45.

The Listener, 1929-1986, published by the British Broadcasting Corporation.

The British Cabinet Office's *Cabinet minutes and memoranda, 1916-1945 (CAB 23-24, 65-66).*

A gift from the Deutsche Forschungsgemeinschaft in Bonn-Bad Godesberg and the Consulate General of the Federal Republic of Germany in Montreal consisted of the following microform sets:

Protokolle der deutschen Bundesversammlung, v. 1-58, 1816-1866.

Stenographische Berichte über die Verhandlungen des Reichstages des norddeutschen Bundes, Berlin, 1867-1870.

Stenographische Berichte über die Verhandlungen des deutschen Reichstages, Berlin, 1871-1881.

The Parish of St. Nicholas Antiochian Orthodox Church donated 637 volumes of books from the personal library of the Very Economus Michael Zarbatany (1884-1960). The collection consists mainly of Arabic books and periodicals on Christian and Islamic topics. It contains a number of rare Egyptian, Lebanese and Syrian 19th-century publications.

McGill's fine collection of source material in the history of science has been enriched once again through the generosity of the late Dr. Donald Mossman. Some years ago, the Mossman Fund provided *Landmarks of Science*, housed in the Physical Sciences and Engineering Library, Macdonald Stewart Library Building. The Library has now acquired *Landmarks II*, the first available monographic segments. The material is in microfiche format.

Professor Theodore Domardzki donated a major collection consisting of some 7,000 books on Polish history, culture and literature.

Through generous grants from the McGill Associates we were able to microfilm back issues of the *McGill Daily*, the oldest student newspaper in Canada. The years 1911-1950 have been filmed.

An extensive and valuable collection of 19th-century French medical theses was acquired for the Osler Library of Medical History. It includes no fewer than 22,500 theses.

The Osler Library of Medical History was awarded a $10,000 grant by the Social Sciences and Humanities Research Council (SSHRC) to strengthen its specialized collection.

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The McCord Museum of Canadian History has prepared a two-volume inventory of the *McCord Family Papers, 1760-1945*, thanks to a generous grant from the Social Sciences and Humanities Research Council (SSHRC).

The Director of Libraries, Dr. Eric Ormsby, published *The McGill Libraries Guide*, an illustrated introduction to the University's 19 Libraries including brief descriptions of their histories and collections.

The famous *Feather Book* by Dimisio Minaggio (Milan 1618) held by the Blacker-Wood Library of Biology was displayed in the Museo Civico di Storia Naturale di Milano. For this exhibition, a richly-illustrated colour catalogue was published under the title *Un bestiario barocco*.

Hans Möller
Editor

Contributors

Montague Cohen was born in London, England and obtained his B.Sc. (Physics) and Ph.D. (Medical Physics) from London University. Before coming to Canada in 1975, he worked at the London Hospital in London and the International Atomic Energy Agency in Vienna. He was appointed Director of McGill's Medical Physics Unit in 1979 and has cross-appointments in Physics and Radiology. He is also Hon. Curator of the Rutherford Museum, Chairman of a Task Group of the International Commission on Radiological Units and Measurements, and a consultant on radiation safety to the Ontario Government.

Davena Davis has been the Rare Books Cataloguer for about ten years. Prior to that she worked in the Acquisitions Department of the Humanities and Social Sciences Library and the Law Library (McGill University). During the academic year 1987-1988, she was a lecturer in the Faculty of Religious Studies. She has, in addition to a M.L.S., a Master's degree in Classics and a Ph.D. specializing in Canadian church history. Her dissertation dealt with the Moravian and Anglican missions in Canada's Arctic.

Adam Gacek, a native of Poland, received his M.A. in Oriental Philology from the Jagiellonian University, Cracow, and subsequently a post-graduate diploma in Library Science from the Polytechnic of North London. He worked at the School of Oriental and African Studies, University of London, and the Institute of Ismaili Studies, London, and is the author of two catalogues of Arabic manuscripts produced for the above institutions. He joined McGill University in 1987 where he occupies the position of Head Librarian in the Islamic Studies Library.

Frances Groen is Life Sciences Area Librarian, McGill University. She received her undergraduate and library science degrees from the University of Toronto and her M.A. in the History and Philosophy of Science from the University of Pittsburgh. She is currently President-Elect of the Medical Library Association, the first Canadian in more than 50 years to be elected to this office.

John Hobbins obtained his B.A. (Hons. History 1966) and his M.L.S. (1968) from McGill University. Since then he has worked for McGill University Libraries as a Reference Librarian, Instructional Services Librarian, Head of Interlibrary Loans, and Head of Acquisitions, Central Technical Services. His current appointment is as Acting Law Area Librarian. He is a Senior Librarian and former contributor to *Fontanus*.

Raymond Klibansky, born in Paris, obtained a Ph.D.*summa cum laude* in Philosophy at Heidelberg University and became the youngest member of the Faculty, till the advent of National Socialism forced him to leave Germany for England where he was made M.A. of Oxford University and Lecturer at Oriel College. After his war service as Chief Intelligence Officer, he became Director of Studies at the Warburg Institute, University of London, and, in 1946, Frothingham Professor of Logic and Metaphysics at McGill University. An Emeritus Professor since 1975, he was made Fellow of Wolfson College and Hon. Fellow of Oriel College, Oxford University. From 1966-69 he was President of the Institut International de Philosophie, Paris, and since then Hon. President. He is also Hon. President of the Société Internationale pour l'Étude de la Philosophie Médiévale and of the Canadian Society for the History and Philosophy of Science which he founded in 1956. He was awarded an Hon. D. Phil. by both the University of Marburg and the University of Ottawa, and made an Hon. Senator by the University of Heidelberg. He is the only Canadian member of the Italian National Academy and a Fellow of several other Italian and German Academies as well as of the American Academy of Science and Letters. His bibliography is published in two volumes of essays in his honour, *Revue internationale de philosophie* 29 (Brussels 1975) and *Reason, Action and Experience* (Hamburg 1979).

Richard Virr is the Manuscript Curator, Department of Rare Books and Special Collections, McGill University Libraries. He holds a doctorate in Church History from McGill (1980). Before joining the Library, he was with the McGill University Archives and the Archives of the Anglican Diocese of Montreal.

Bruce Whiteman, Head of the Department of Rare Books and Special Collections, holds an M.A. in English Literature (1977) and an M.L.S. (1979) from the University of Toronto. He has published widely on Canadian literature and bibliography, and is, as well, a poet and book-reviewer. He is currently the editor of the *Papers of the Bibliographical Society of Canada*, and is working on an edition of the letters of Montreal writer and editor John Sutherland (1919-56). His new book of poetry, *The Invisible World is in Decline*, Books II-IV, has just been published by Coach House Press (1989).

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Volume II, 1895-1971

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