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WILLIAM HUNTER

Physician, Anatomist
Founder of the Hunterian Museum

The Hunterian Library

By

JOHN YOUNG, M.D.

Regius Professor of Natural History in the University of Glasgow
and Keeper of the Hunterian Museum



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It is not given to every University to boast, as is claimed for that of Paris, that it was great from its inception, Quo circum nata est tempore magna fuit, and assuredly early prosperity was not given to Glasgow. When, 450 years ago, Archbishop Turnbull, at the bidding of James II., obtained from Pope Nicholas a bull instituting the University, there had already existed at Glasgow both the taste for letters and the means of gratifying it. Not content with study at home, the youth of the country was wont to travel into England for greater knowledge, even to the Continent. As such journeys were impossible without safe-conducts, as these were of necessity solicited at the hand of the English executive, each request, however honourable its object, was an admission of a certain inferiority at a time when there was still a fresh memory of English forgetfulness of promises and it must be admitted, of Scottish equivalent irritations. It is not therefore impossible that the Border heredity of the Archbishop had to do with his willingness to provide a permanent means of avoidance of a recurrent inconvenience, as well as a reason that the sons of the nobles should learn to put a higher value on their own land. The University, the child of the Crown as well as of the Church, was in a sense a King's daughter, but she was not all glorious within, was rather a Cinderella among Universities, dependent for existence, and that of the barest, on wholly inadequate provision, whether in money or lodgment. The Paeda-

gogium, wherever situated, and the Chapter-house of the Cathedral as places of meeting, tell more of zeal than wealth, and the ultimate generosity which gave the site in the High Street opened a story which closed only thirty years ago. The generosity of Queen Mary availed not, but her son, by the deed of Nova Erectio resumed the regal benevolence of his ancestors. Of this document a summary translation is given in MacGregor's *History of Glasgow*. It is a curious document, in which the scanty resources of the institution are made the most of, and its resemblance to its Italian prototypes accentuated. But the University would be shamefully ungrateful were it to omit mention of the unceasing interest taken in its welfare by the Municipality which, from 1572, when it gave one of the three foundations of that year, down to the present time, has ever been ready to hold out a helpful hand. The Crown (including its temporary guardian, Cromwell), the Hamiltons, Regent Morton, Abp. Turnbull, these are recorded on our mace, but the arms of our City are there too, and tell of a fostering zeal without afterthought, directed solely by the desire "to improve our knowledges." The site in the High Street, though not lending itself to stately mansions, ended the need for meeting in the Crypt of the Cathedral, ended too the necessity of dwelling in shabby buildings such as, under the name of Paedogagia, testified till a recent date the modesty of the provision for the housing of the cives academiae as well as of learning. On the whole the fostering care of the Church was more beneficial than that of the Crown, at least down to the flight of Cardinal Beaton, a patron, nay officially a guardian of the University, who plundered his charge in a wholesale fashion, only he treated the episcopate as he did the University: the property of neither has returned to it.

The Italian Renaissance which guided the bull of erection had been carefully followed: the model of Bologna (or Padua) was that on which the western institution was founded. But the mediæval divisions were closely followed.

Hence, though Faculties are spoken of, these are not to be understood in the modern sense: Medicine had no place. Physiology was nearly, in modern phrase, Physics, the science of nature. Small wonder that so little was medicine deemed to demand the fundamental study now held indispensable, so imperfectly was accurate observation regarded as claiming the attention of the physician, that he was, to all intents, a philosopher, and deserving of the fate of Jerome Cardan if he so much as imagined the possibility of error in anything asserted by Aristotle or Galen. In 1625 Anatomy was given up as unnecessary, and its later resumption was set about in a half-hearted manner. For the previous decision had been that of the Visitation appointed by a General Assembly. But in 1664 (only 22 years after) it was agreed that there ought to be a profession of Medicine. In 1703 however demand created supply, for an Englishman sought a degree, and as there had been for some time no professor, there being no funds for the office, it was resolved to name as examiner the best qualified at hand. Accordingly the then Professor of Mathematics, Mr. Robert Sinclair, was called on to act, and with him were associated two practitioners from the town, the report of this scratch board being adopted and Mr. Benion receiving a diploma. In 1718 Anatomy and Botany were combined in one chair, an association which ended with the last Commission. No farther advance towards a Medical School was possible till 1794, when the Royal Infirmary was organised, when clinical teaching was at the command of teachers and pupils. This agency had existed in Edinburgh from the first quarter of the century, when began that combination of university and extra-academical teaching, rivals yet associates, which gave that city its position as for long the chief school in the country. For London as a competitor did not come into existence till the later period of the century: prior to that individual teachers attracted pupils, but organised, associated teaching was slow of arising, it was the doing finally of strangers.

When W. Hunter entered the University of Glasgow, there was nothing to entice him to the medical profession: in fact he seems to have tacitly acquiesced in his father's desire that he should qualify for the Church. Of his college course nothing is known beyond the fact that he spent three years in the Arts classes. But, whatever his associates within, he fortunately made the acquaintance of William Cullen, his senior by eight years, and then engaged in rural practice. Quickly was their alliance formed, and the quasi-partnership entered into whereby they were to give alternate years to the practice, and to study in Edinburgh. The pact was of brief duration. Speedily London cast its spell over Hunter, whither he was attracted by Douglas, to whom he became attached as aid in his anatomical work, and the more intimately that he became also the tutor of his son: it is possible that there might have been a tenderer bond, but death ended this possibility.

Douglas never published the illustrated work on which he spent much time and money, and in the preparation of which Hunter had useful experience. The proofs in the Museum make one regret that the labour was lost, for, as a series of anatomical drawings, it would have surpassed Cheselden's similar and lavish folio. The experience extended beyond the mere familiarity with the details of artistic selection and supervision: Hunter was thereby made to enlarge his anatomical knowledge, and to learn that the anatomist who would be both ready and accurate must have the complete mental picture of the regions he wishes to refer to always available at will. Something of this is preserved in the tradition of his treatment of Baillie when the young man began his career as lecturer: asking what he knew of the subject of the day's lecture, he bid him proceed with the demonstration, adding that he could only be at ease to whom the absent dissection was distinctly present. But Douglas was also in practice as an obstetrician, and Hunter was thus kept in contact with the professional work in which he afterwards gained distinction and secured financial success. Even

the opportunity of knowing the methods of the Paris school he owed to his tutorial position in Douglas' family; for though his pupil James wasted his time during his visit to the Continent, Hunter did not. He attended the lectures of Ferrein, and his notes show that he did so in a critical frame of mind, and that he was prepared for useful criticism. But he seems to have carried away the same impression of anatomical that Smellie did of obstetric teaching, that it would go hard if he did not better the example; for he kept in mind the great advantages possessed by Paris as regards the supply of subjects. This was, in fact, the chief drawback to the cultivation of anatomy in this country. When Hunter became a student, a new life was beginning to spread in the University. The old fashion of lecturing in Latin gave way, and newer, more direct modes of thought and expression infused fresh life into academic pursuits. Hutcheson, Cullen, Joseph Black, Hume, Adam Smith, James Watt, those in Scotland told of an upheaval in customary cherished opinions and modes. But whatever Hunter received in the way of influence in Glasgow, he carried away with him solid scholarship, which enabled him to master the MS. and printed volumes collected during later years. Harwood, in the first and third editions of his catalogue cites Hunter's comment on Theocritus, and it remains a puzzle why this was omitted from the second edition. Perhaps to this period belongs the influence which found expression in introductory lectures long after, when he insisted on style, good writing in every sense, instancing the letters which a busy practitioner has to write daily to patients and consultants. And certainly he acted up to his advice. The short notes prepared for his catalogue, the brief comments on works in his library, the narrative of his attendance on Her Majesty, are as exact in their precision as might be expected from him whose "fastidious accuracy" is noted by Cullen as causing long delays. His *Introductory Lectures* are the man himself: elegant in language, copious in illustration, thoughtful in a high degree. Kindly and excellent in his advice to the

young student whom he reminds that he must think of the future at a time when that future seems boundless in extent, unlimited in possibilities: at a period of life when errors seem unimportant in view of the vast time available for their rectification. The controversial papers which he deemed himself bound to write are weak spots in his life, strongly though they testify to virile force of thought and feeling. It is said that Smollett revised them; that seems needless save to guard against trivial errors, for they are manifestly the spontaneous effort of one. His brother, writing from abroad, compliments him on these pieces of bludgeon work. It was fraternal, but one regrets that the similarity of character between the brothers, to be referred to again, was so exhibited.

Hunter was early under the influence of one overmastering idea—to teach. That is announced in a letter to Cullen, not as a vague idea, but as if a well-arranged plan were already in his thoughts. The dominant notion was to teach Anatomy, in no restricted sense. He had a broad grasp, even at this time, of the unity to be carried through the scheme of nature, had already formulated in emphatic terms the belief in design which both brothers entertained. He began to lecture in 1746, and his labours only ceased with his life, which, indeed, his devotion shortened. In these thirty-seven years he established his reputation as the best teacher in this country, as he was the first. His care was to provide that his students had adequate supply of subjects for dissection, and that there should be also ample means of study in the museum, which he rated as only second to the dissection-room. On the preservation of illustrative specimens he early concentrated his energy, and, that there might be no delay in the provision, he associated with the work young men who had given promise of capacity. For five years prior to his lecturing he had systematically dissected, injected, and accumulated specimens, so that he had already a stock to put before his students. In 1748 he visited Holland, and carefully noted the results achieved by Albinus,

then the ablest in the art of injecting. Yet, highly as he placed the formation of a museum, he did not rate its functions too highly. He cautioned against the substitution of preparations for dissections, as he did against the notion that a short course of lectures would suffice. In fact he, first, had the zeal sufficient to commence a full course of instruction, and to encourage the students to take more than one course of lectures, for these were largely demonstrative. Jupiter Carlyle bears valuable testimony to his skill as a lecturer, for he and Principal Robertson had the benefit of a lecture on the eye, "one of the most clear, brilliant, and excellent lectures that we ever heard." And these were no mean judges. Gibbon attended his lectures, and made use of his scholarship and library as of Mead's. Adam Smith too attended and acquired the strong views on University monopoly which Prof. Smart kindly pointed out were embodied in a letter to Cullen. The scholars of such teachers (Hunter, Fordyce, Hewson, etc.) surely merit whatever honour or advantage much more than the greater part of those who have spent many years at some Universities.

Hunter was fortunate in the time of his arrival in London. The death or retirement of several leading obstetricians left the ground clear for him, and he was singularly fitted to make his way. A charming manner, elegant address, fastidious neatness in his person, he had every advantage over those who trusted to mere professional dexterity for success. He certainly gained, by comparison with Smellie, who neither in person nor manner seems to have had the gift of winning his way. At this distance of time, under wholly different social conditions, it is not easy to follow the careers of the Scottish practitioners in London. But Hunter triumphed over two great and grave drawbacks, he was a Scot, and, though not mean as an entertainer, practised a moderation strongly in contrast with the taste, at least the practice of the period. The man who thought one dish sufficient for dinner, did not allow more than two, and gave his guests two glasses of wine, content himself

with one, was of no ordinary power or skill in drawing friends, for his table seems to have attracted guests, and Carlyle gives a fair instance of the simplicity of the entertainment and of the peculiar charm of the host. "Hunter," he says, "was gay and lively to the last degree, and often came to us at nine o'clock fatigued and jaded. He had had no dinner, but supped on a couple of eggs, and drank his glass of claret, for though we were a club we allowed him a bottle of what he liked best. He charmed us with the brilliancy of his conversation. His toast was 'May no English nobleman venture out of the world without a Scottish physician, as, I am sure, there are none who venture in.'" The spirit of the toast is explained by Walpole's remark when disappointed of a card party by the unexpected confinement of the prospective hostess; "instead of receiving cards for assemblies, one should send in a morning to Dr. Hunter, the man-midwife, to know where there is loo that evening." Elsewhere Walpole's political and anti-Scottish feelings impel him to speak of Hunter as "the Scotch night man." These were probably effervescences of a literary coxcomb, bent on "smart" phrases for his correspondence, as about the same time he speaks of Hunter's kindness in occasionally calling to see him. In 1780 he records "Two mornings after they might have seen me receive Dr. Hunter, and a moment after Lady Craven, a man-midwife, and so pretty a woman are very creditable; and yet, alas, he came to talk to me about Greek medals, and she about a new comedy she is writing." These trivialities are of interest at a time when a bequest to a learned Society was cancelled by a testator because the secretary was a Scot.

In anatomical investigation Hunter justly claimed originality, for few had so keen an outlook on the union of anatomy and physiology. But he was not always justified in his claims of priority. There can be no question that his descriptions of the lymphatics far excelled those of his predecessors. But he did not assign enough credit to Asellius

and others who had pointed out the way. At Hunter's day there was keen interest in the debate whether absorption was the work of the veins, or of the lymphatics, and William and John made experiments to try to settle the uncertainty. These were not convincing, but William leaned to the opinion that the lymphatics were absorbents, and the sole absorbents. He, however, rejected the notion of inhalent vessels, an error founded on the supposed need for access of fluid to the interior of the canal which was to convey it. Long time was to elapse before the osmosis or the properties of cells in the vicinity of fluids should be recognised, though W. Hunter had clearly announced the excretory function of the sudoriparous glands. Microscopic observation, however careful and exact, did not suffice for the detection of the stomata on the peritoneal surface, and so we have another instance of the length to which an acute mind can carry the unaided vision, of the failure of that intelligence to complete the circle, incomplete by so narrow a defect. Only the ungraciousness of Monro's attack warrants, even in the slightest degree, the tone of Hunter's pamphlet; but it seems as if he did well to be angry. The thing was at best too trifling, but Monro's whole mode of dealing with the matter, and his hinted attack on other writings or Hunter's all had an air of determined aggression far in excess of the plea put forward. The preparations of lymphatics in the museum are of beauty and interest, and one regrets that they cannot be allotted individually to those who executed them. For not only was William interested in the investigation, but he enlisted the keen and continuous interest of his brother John, of Hewson, Sheldon and Cruikshank, the last of whom published what had not been made public before William's death. It was one benefit of the Monro controversy that thus exhaustively the question was studied and, in reply to the assertion that the lymphatics did not occur below the mammalia their presence was shown in fish, turtle, bird. The reverent terms in which their teacher is spoken of gives us a higher

idea of his personal influence than we obtain from any other document, save perhaps the following letter which preceded the execution of the cup figured on the medal and exhibited in the museum :

“ Sir,—We are now just entering into the World, are at a time of life which must determine our future Characters and our Success in it. We have ambitions as become us, and our title to Fame is by no means ill-founded, having been your Pupils, if of such an advantage we have made a proper use.

“ Desirous, then, of appearing Men of Consequence, yet conscious of our inability to rise on Merit all our own, we count the World’s applause as Patrons of Ingenuity, and are attempting to build our Fame on a surer Foundation—by setting forth the Merit of Others. A Device this which we hope will meet with your Approbation and Countenance.

“ With this View, permit us to presume so much on your friendly Disposition as to introduce to your knowledge Mr. Crisp, the Nature of whose visit will be better explained to you by himself than we can do it in writing. He will, by our Order, present to you one of his Performances, and if it should so far meet with your Approbation as to be honoured with a place on your Sideboard, he will at least have good Reason to believe himself safe from the awkward Censure of pretended Judges; whilst we shall have a certain praiseworthy Pleasure in having communicated to Posterity the Fame of a distinguished Character, Countenanced by your Authority. Our Patronage must have its Weight, as Numbers will crowd in to your Opinion and think it thus honourable to agree in Sentiments with Dr. Hunter.

“ Here were it not for offending only you Sir, we might give, in drawing your Character, the fullest liberty to our Pen, without any Danger of being deemed Flatterers; But Cautious to avoid every Danger of offending whilst our Ambition is to live in your Memory we curb even the Dictates of a grateful Heart. Think not, however, that We are Insensible of the many Obligations which you have conferred

on Us, but do us the Honour to believe that it will be the anxious Endeavour of all of us to have deserved them: and permit us with all Respect, and with every good wish for your Health and Happiness, to subscribe ourselves, Sir, your much obliged and very humble servants."

Here follow the signatures of his pupils, whose "style" is as unmistakeable as its honesty. It is characteristic of the period, and agrees with the tone of the letter from Shippen, which tells us the part taken by Hunter in the creation of the American medical schools. It has been said that that was a period of museums, the curiosity of people, educated and uneducated, had been roused, and could only be gratified by the collection of specimens illustrating the facts to which their trust had been given. Abroad Hunter had seen the collections of Albinus and Haller: at home Hans Sloane, Mead, Fothergill, Sandys, Falconer, and others had shown the reality of the spirit of which he saw the value—and the danger. For he warned against the risk of the teacher, by too much reliance on these aids, weakening his zeal for fresh specimens, concentrating his work on those things he knew he did well, and so forgetting that they were illustrations to be used for special points not for continuous teaching. While John Hunter's collection went to the Royal College of Surgeons, Baillie's went to the Royal College of Physicians, Hewson's microscopic preparations to the College of Surgeons, Cruikshank's to Russia; those on nerve repair are in Glasgow and the experiments have been further studied and extended by a more recent graduate, Dr. Kennedy. It is beyond possibility to identify many specimens as belonging to that or the other person: but this does not mean that the remark of a recent biographer is true or just, that Hunter claimed discoveries made in his rooms as belonging to him. The frequent references to his brother and others of his coadjutors, who owed to him the opportunity of so distinguishing themselves are answer enough to an unkind and unjustifiable insinuation.

Goodsir says, "Great as W. Hunter was, he is not to be

considered as the leader of this period. He was rather to be considered as the head of the school from which great men emanated. He was the first to discover and in every way to understand and appreciate his brother John." His reverence for John tinges his opinion, but does not prevent him doing justice to William the discoverer of the great surgeon. Yet I would put in a word for the "middle man," as William is here treated. The steady perseverance of an intelligent pioneer not given to speculation, rather deprecating it, the curious instinct which points the way even in unfamiliar ground, and is content to record results with scrupulous regard to accuracy, surely entitle the possessor to rank as a benefactor of science, above all when he has led the way by making opportunity for the prosecution of a study never heartily taken up till he had devoted himself to it: the pioneer is often more deserving of gratitude than he who does well on the new route, barren to him till explored by another.

William Hunter had other claims. He paid attention to congenital hernia discovered by Haller, whose account of it he received in 1755. Interested in the novelty he induced John to make dissections, a report of which William gave to his class the year following, evidently charmed with his brother's work. A pathological state dependent on the survival of a foetal condition could not fail to attract his attention, while Percival Pott's calm silence in the paper he published, regarding John's work, roused his wrath to the publication of a controversial philippic. He observed retroversion of the uterus and the paper he published elicited the regretful remark that had it appeared earlier lives might have been saved. The specimen illustrative of this condition is figured by Reynolds in the portrait in the Museum.

He published an account of the Aneurismal Varix, a traumatic lesion not uncommon in the days of phlebotomy but previously undescribed. To cardiac lesions generally he had given much attention, but strangely enough he has been credited with the opinion that cyanosis was the direct consequence of continued patency of the foramen ovale, an

opinion which he had expressly disavowed. The point he made was that *the* lesion was not the patency of an aperture but the obstructed passage of the blood to the lungs and its consequent non-aeration.

It would not be wholly profitable to go over the numerous papers which he contributed to various periodicals and publications, more especially as an admirable account of them is contained in the most recent and trustworthy notice of him by Dr. Hingston Fox, whose Hunterian Oration of 1897 has been a labour of love, to which I am indebted on many points.

But one remarkable paper deserves note as an advance on the current opinions of the day, arrived at without the aids which modern microscopy would have lent towards simplifying the research. He gave a just view of the "Cellular Membrane" which Haller had spoken of as "the inorganic basis of our organized tissues," but which he described as "themselves active vascular tissues capable of increase and decay in every part." This was an opinion formed in connection with a case of anasarca, and he further states that fat is not lodged in the cellular tissue like fluid in an anasarca: the vital particles he affirmed to be lodged in the cellular membrane, but did not recognise their function or mode of operation. He did however show that, while anasarca was a passive condition of the tissues like traumatic emphysema, to be relieved by discharge from cutaneous punctures, sweat was a secretion which he rightly referred to the glands. Minor as these observations now appear they mark very distinct solid advances, less perhaps in the area than in the accuracy of anatomy.

The great paradox of William Hunter's life was his depreciation of Harvey's work. Much has been made of this, but needlessly. Hunter lived a century after the discovery—could not therefore realise the change which it had made in the thought of the scientific as well as of the medical world. Accustomed to research, knowing the possibility of a discovery being completed by a casual unexpected observation, he did not realise—as was true in

his own case—that the slight point on which the completeness of the whole hung might be more difficult, might need a greater external stimulus, than all the other preliminaries. No one suspects Huxley of a desire to depreciate Darwin, yet he wonders how no one had hit the critical point of the theory which revolutionised science. But Huxley lived through the pre-Darwinian into post-Darwinian days, knew how the final achievement had been reached, above all knew the change, the gain. Next century may find those who have not had this advantage filled with wonder that aught so obvious had escaped so many keen interested thinkers: more likely is this if these, themselves contributors to the advancement of knowledge, shall be galled by the detraction of their contemporaries.

William Hunter made the process of foetal development a special study—he hatched eggs, obtained embryos at all the stages possible, noted all the miscarriages, by abortion and otherwise, which yielded the faintest hint. His preparations were in their turn profitable to a recent member of this University, Dr. Allen Thomson, who is associated with the study of Embryology in the 19th century as an early contributor by the article, "Ovum," in *Todd's Cyclopaedia*. Hunter early made a study of the anatomy of the Gravid Uterus, began the task 1751, and in 1775 published the work on which rests his greatest claim to the gratitude of succeeding generations. He demonstrated that the circulation on which the embryo depends for nourishment is duplicate, the maternal and foetal streams being ever apart, and that the tales of maternal death by hemorrhage from the cord were, in his emphatic language, lies. But he did more: by demonstrating the nature and anatomy of the foetal appendages he removed the process of reproduction from a morbid to the category of normal functions. He saw in the membrane lining the gravid uterus the equivalent of that which was normally present at the catamenial periods. It was no exudation of lymph, no suggestion of an inflammatory therefore abnormal product,

but the normal lining membrane of the uterus modified to meet a special duty. He did not attempt to explain how the ovum became embedded in this layer, it is not explained yet: he was content with the appearance which occasioned the phrase *decidua reflexa*, and left the further problem to the future. What he saw and understood he told clearly, and nothing of what he told has been found wrong. Some things he failed to see, and erred in consequence: thus he said there was no allantois, an error which younger embryos would have saved him from. The same fatal limit to knowledge which left his comprehension of absorption incomplete was in the way of his understanding of the mechanism whereby the foetus draws nourishment: and even yet the microscopy of to-day fails to make clear the respective shares of the epithelial layers; but, at any rate, no one now need think of the foetus imbibing the amniotic fluid. The felicitous comparison of the foetus to a plant, with its roots bathed in the fluids of the parent, is one of uncertain origin, at any rate its employment by Hunter shows how utterly he had in view the distinctness of the two streams. The preparations in the Museum attest the thoroughness with which the investigation had been planned and carried on. Yet this is the work by which he has suffered most in subsequent records. Coste is the author to whom in the first instance we are indebted for the correct presentation of his views. Left at his death incomplete, his MS. passed into Baillie's hands, and he "with diffidence attempted" to compensate the deficiency. Hence William Hunter has been made responsible for the opinion that the outer layer of the membranes is, in John's words, "an exudation of lymph from the vessels of the uterus due to the stimulus of impregnation." William's own words, in his introductory lecture, are "the internal membrane of the uterus which I have named decidua constitutes the exterior part of the secundines or after-birth: and separates from the rest of uterus every time that a woman either bears a child or suffers a miscarriage." The vital connection of parent

and child is not, as the other view suggests, "the incapsulation of a foreign body in the tissues." Matthews Duncan, who made himself the vindicator of William Hunter's reputation, has made this story abundantly clear, and by citing the works carefully, has removed every excuse save that of unscrupulous partisanship for the misrepresentation of the truth. The high position of Duncan in his speciality gives weight to his words, which are not those of an amateur, but of an expert who has examined the evidence, and who is in a position to enforce the statements of Priestley. But Hunter's *post-mortem* misfortune had a painful antecedent calamity. His brother John disputed his title to the placental discovery, and tried to discredit him before the Royal Society. Small as is now the possibility of getting at the truth, it is of importance that the Society declined to stir in the matter. John had held back his claim for 25 years, during which he must have known William's diligence in preparing his great work, the main points of which he imparted to his classes. William's reply is dignified; that of John is not notable for courtesy and kindness. It seems strange that so much should be claimed of thirty-five years' work, and that of that part so much has failed to stand the test of time. William had followed from the earliest accessible stage after conception up to maturity, and made a consistent whole which was not broken upon at any point: the first step of John's assertion as to the provision for pregnancy is wrong, and such descriptions as he has left lack the completeness of a work which he said had so long engaged his attention. The confusion is not to be cleared up now; but the tone of John's last letter, the reckless way in which he surrenders the main contention, does not give the feeling of earnestness in his case, or it is a concession that he is not quite in the right in putting it forward against the brother who had attacked Percival Pott in defence of his, John's, rights as regards hernia, and who spoke of himself as "my brother's demonstrator."

Starting as a surgeon, he speedily directed his attention chiefly to obstetric practice, and, appointed in 1748 to the Middlesex and the British Lying-in Hospitals, benefiting by the retirement of several leaders in this branch of the profession, gained such rank as to be consulted regarding the Queen, and his attendance on Her Majesty during three successive confinements is detailed in a MS. in the Library, of which Dr. Teacher gave some account in the *Glasgow Medical Journal*, 1899. In 1764 he was Physician Extraordinary to the Queen, and fairly launched in the highest practice that the Metropolis could offer. But while surgery failed to secure him in a calling too painful to his feelings, he engaged in practice as a physician, and his papers in the *Medical Observations* show a singularly wide range of knowledge and grasp of principles. On this ground it is somewhat strange that remarks should be made as if his pathological position were inferior: as if that could be the case for a man to whom physiology was one, the normal, and pathology the other, the morbid aspect of anatomy—the man whose influence was ever given on the side of the exact recording of all phenomena, who so well saw the only way in which medical science could hope for advance as to embody his view in the unmistakeable statement, “Were I to guess at the most probable future improvements in physic, I should say that they would arise from a more general and more accurate examination of diseases after death. And were I to place a man of proper talents in the direct road for becoming truly *great* in his profession, I would choose a good practical anatomist, and put him into a large hospital to attend the sick and dissect the dead.” This anticipation is worthy of him whose work was carried on by Baillie. It is in harmony with his view that variations in structure, abnormalities even, take their place in the scheme of nature, which, “in varying and multiplying her productions, has hung out a train of lights that guide us through her labyrinth.” To him comparative anatomy was an aid in finding the meaning of parts not at first recognisable in the human body.

He examined, and with usual thoroughness got full particulars regarding, the remains found in America and elsewhere, and determined them as not of the true elephant but of an allied animal. Consulting dealers and finding that the substance in his hands was true ivory, he expresses the view that ivory might be produced by more than one animal. The teeth were not the same as those of the elephants he inspected, but, in consultation with his brother, whose paper on teeth he had published, he regarded the mastodon as carnivorous, an opinion which was formed by others, if we are rightly informed, on the similarity of appearance to the lower jaw of the hedgehog. Every one who had something unusual brought it to Dr. Hunter for his Museum; hence he receives papers on things dredged in the English Channel, etc. The careful enquiries addressed to the American finders of the mastodon remains are an example of exact search after accurate facts; but Darwin mentions a more remarkable investigation, one undertaken at a time when universal belief seemed to render the enquiry uncalled for. All the patients at the Lying-in Hospital were asked on admission if there were circumstances which in their mind were likely to have affected the child. It was found that there was no foundation for the notion that maternal imagination affected the offspring; but when the mother, after delivery, had the peculiarity explained to her, she always could give some explanation more or less appropriate.

The distinguishing feature of Hunter as an obstetrician—perhaps it would be better to say as a practitioner of medicine—was his steady advocacy of the power of nature against the *nimia diligentia* of professional men at that time. Indeed, it may be said that his wise caution had in some ways become unduly exaggerated. He recommended care in dealing with the after-birth, deprecating forcible removal, a frequent cause of inversion. He spoke more strongly than was just in deprecation of the use of the forceps, and so great was his influence that many years elapsed before the true medium was arrived at regarding

their use. Less just is the blame attached to him because of his attitude towards the Symphysiotomy. However, he has had ultimate vindication in the disappearance of the operation. His attitude was the consequence of having seen the result of natural conditions, and he justly says, Why drag apart one of the strongest joints in the body, an operation requiring the use of extreme force, for the sake of the gain of an infinitesimal space? The gain is so slight, and the evil effects so certain and so grave, that the safety of the patient warns against, if it does not actually forbid, the operation. This anxious solicitude for the patient is not the only illustration of Hunter's natural kindness. A paper printed in the *Medical Observations* after his death, "On the Uncertainty of the Signs of Murder in the case of Bastard Children," is well worthy of perusal, as telling much of the man—full, detailed in reasoning, careful in the balancing of evidence, above all animated by a benevolent anxiety to make clear that those who are exposed to such a sad ordeal shall have every element of caution exerted in their behalf, and she who at such a crisis, little able to defend, scarcely fit even to think about herself, shall not be left a victim of prejudice or hasty censure. The picture drawn of the victim to whom, in the instability of mind incident to her sex under such conditions, momentary temptation to crime offers the sole apparent escape from an agonising and hopeless trial, even ruin, is one which does credit to Hunter as a physician and as a humane friend of patients thrust on his pity, of whom it becomes not man to set up as judge.

The indications here and there of "ahnungen" of deeper problems in zoology arising out of his anatomical observations are frequent. The investigation of Malformations of the Heart brings forward the thought that certain teratological conditions are arrested early stages, the unlucky possessors being unfit to carry on the succession, in the language of the following century, the survival of the fit being secured by the inverse operation, the disappearance of the unfit.

The treasures of the Hunterian Library are such as that I dread prolixity in referring to them. That catalogue which would enable others to sympathise with and to judge of my pride as the custodier, the impecuniosity of the University forbids it to print. Mss. there are, more interesting because of their inherent interest than of their rarity or provenance. In the Printed Books there are many interesting groups, some collections dealing with departments of medicine, others classical, and, strange to say, many works of early theology. Obstetrics offer the books of Eucharius Rhodion, Woolveridge, Mauriceau, Chamberlen, down (in chronology) to the writings of his contemporaries. Mundinus heads a list which includes Fabricius, Morgagni, Vesalius: there are original drawings by Stephen von Calcar, by Berettino, by Cowper (the Bidloo edition is present also): the plates for Cheselden, for Douglas, for the Gravid Uterus, and a host more are mixed up with receipts for Hogarth's works, Roger's drawings, sketches for the *Phil. Trans.* by Parsons and others who had been enlisted by Hunter in the delineation of special subjects. Illustrated books, dependent for their value on the illustrations, abound, some in exceptional state, from the *Hypnerotomachia* to Gravelot and Eisen (not omitting the Dutch piracies). The numismatic cabinet has not been forgotten, for Hunter was more than a collector of curiosities, he was an archaeologist to whom the value of an object lay in the historical information it gave or suggested. Archaeology was a department of history for him, as it is to all of sufficient age to understand historical methods. In a period given to the formation of fine libraries, W. Hunter formed one of historical as well as of personal and professional interest.

I am happily saved from saying aught as to the Coin Cabinet. Mr. George Macdonald has laid exact scholarship under obligation by the Catalogue which the wise generosity of Mr. Stevenson has enabled him to prepare, a partial fulfilment of the Senate's duty to give account of all Hunter's possessions. Medical men will have recognised

my obligation to Dr. J. H. Teacher for the Catalogue of the Anatomical Preparations, for which the Bellahouston Trustees have provided the necessary funds. In connection with Dr. Teacher's work, I should say that he has done the part of a conscientious editor, retaining as far as possible the words of his author; and thus he illustrates the justice of Brodie's remark, "I am greatly deceived by my juvenile recollections of it if I am not justified in asserting that the publication of it, the Catalogue, even at the present time, would be of the greatest service to the profession." How correct was his juvenile recollection may be seen now, though Dr. Teacher had to omit a great deal which the old nomenclature rendered well-nigh unintelligible. It is matter of satisfaction that the collection is now thoroughly revised, refreshed, and ready to last for a long time in as good condition as in its founder's day: to him and to the modern benefactor the thanks of the University are due.

There are still ways of further discharging our duty of gratitude to Hunter. When the University shall have the means to carry out all that gives completeness to the doings of such an institution, it will be possible to provide catalogues of all the collections which, bequeathed by Hunter or gifted since his death under the stimulus of his taste and example, form the "Hunterian Museum." The minerals, of which partial description dates back to the early years of last century, are now a valuable aid to teaching. With the experienced and accurate help of Mr. G. R. Thompson there are now a museum group, a series for exchange, and, most important, a series for the practice of analysis, which, under more favourable circumstances, it will be an essential part of the duty of the University to provide in this city of mineral wealth. The zoological stores will supply a good foundation for an illustrated catalogue far beyond the original resources of the bequest, but not beyond the spirit in which the utility of the collections was looked at. The private collector who regards his horde as a trust for the public, who having withdrawn from his account money intended for extension, is

uneasy until the money is repaid, does not take his place as a collector but as a public benefactor, who, knowing a public want, prepares to supply it, not announcing his intention till he sees his way clear to fulfilment. He began to create a museum for his students, he ended by fitting it out for the benefit of all the students in all the faculties of his old Alma Mater. Zachary Boyd's gifts were for the magnification of the library, means of enlarging the usefulness and reputation of the University, not like the more pretentious bequest of his contemporary, Snell, which has created the impression that this is a public school whose pupils might be rejected elsewhere at discretion. Hunter took precautions that those in whom he was interested should not suffer by his benefaction to Glasgow. Baillie was to have the use of the Museum, an indispensable possession for one who had only his success as a teacher to depend on, and though the rapid growth of his practice soon made him safe on this score, it was well that he had a guarantee, for some arrangements seem to have been in contemplation which only his tenancy ended as he desired they should.

More striking is the bundle of letters appended to the Introductory Lectures, from which it appears that Hunter spent time and money in finding the best site for the Medical School which he proposed to build, endow with his museum, himself giving the needed courses of lectures so that the improvement in the teaching of Anatomy which he had initiated in 1746 should not be sacrificed. But he met the usual official treatment: sent from pillar to post, waiting for months for a reply, in communication with clerks, and finally giving a short respite after which his responsibility was to be finally at an end. This was not the only scheme he had in view: he had at one time thought of starting a school in Glasgow in association with Cullen: in 1765 he records, "I have a great inclination to do something considerable at Glasgow sometime or other." When there was negotiation with Baillie about the collection, it became apparent that the University was chiefly interested in the acquisition of the

Anatomical Department, less concerned about the Library and Coins, probably foreseeing the difficulties in dealing with, at least, the latter. The University record well says that "the College of Glasgow in accepting the custody of the Anatomical Museum must be held by the public to have at the same time undertaken 'the guardianship of his scientific reputation.'"

In that spirit I accepted the duty imposed on me by those in charge of this celebration. I have endeavoured to set before you the grounds on which it seems right to claim for William Hunter grateful memory and scientific admiration. As a discoverer he has done service, while his descriptions of what was already known have rendered them almost new, and the wealth of collateral knowledge used in their illustration raised them into literary successes. As a physician he earned high rank among his contemporaries and added much to sound practice. In obstetrics, his special field, he based the practice on sound views of the anatomy of organs and of accessory structures, such as had never been dreamed of. Nor were these rash speculations or impulsive fancies for which verification had to be sought, they were the winnings of long years given to the prosecution of research when facilities for such research were neither common nor easily made use of. The nutrition of the foetus was an enormous advance on the knowledge of the day, and was in its way supplemental of the Harveian gift to science. But his influence for good was exerted also in other ways; the high position which the scholar and man of taste merited was beneficial to the profession, and has redounded to the credit of the University which became his heir. And that succession it could accept without hesitation. The purpose for which the collections were formed was definite; anatomy was the key note. And precautions were taken that his nephew, whom he treated as a son, should neither be harassed nor impeded in the tenancy designed to him, no injury was done to kin, nor to science, but the ultimate

benefit of the gift to the youth of following generations was distinctly in view. And if that benefit has been slow in arriving, if some portion of it is still in promise, I trust that a better knowledge of what the University possesses and what it lacks the means of putting in the hands of a still wider circle (for Hunter had no limited view of the audience to be brought within the influence of his labours), I trust that thus the friends of the University and of learning will, as has been done in the case of the coins and of the anatomical preparations, enable the administrators of the bequest to do for it what William Hunter, had he survived, would have striven to accomplish.

Since the above was in type, intimation has been made of Mr. Carnegie's magnificent donation to Scottish education, whereby the work of our Universities will be extended and improved in every direction. A benefaction like this, from America, recalls to memory Shippen's acknowledgment of Hunter's share in the medical schools of his country, and the acknowledgment by Briggs of Glasgow influence in American Presbyterianism. Whatever proceeded from this country returns in greater measure, and at a critical period in Scottish University history.

ADDRESS BY PROFESSOR YOUNG ON THE HUNTERIAN LIBRARY.

*Reprinted from Annual Report of Stirling's and Glasgow
Public Library, 13th April, 1897.*

PROFESSOR YOUNG said — The custodier of a Museum, especially when it includes a library, has much responsibility, but many pleasures, many compensations—though I do not consider the present occasion falls under either category. The honour done to the Hunterian Library in inviting me to take part in your proceedings, I accept; if disappointment follows my performance, you must accept it. But I anticipate for you a certain amount of satisfaction, as the collection of books in my care is not well known; and though I address those who know far more about books than I, even experts will hear with interest what there is to tell as to the growth of an 18th century library.

The founder of the Hunterian Library is not well known; he has been overshadowed by the fame of his younger brother, whose collections had the advantage of being housed in the metropolis. Even Blades, a bibliographer, therefore, by a sort of divine right accurate, gives "J. Hunter" as the purchaser of Caxtons, and an official of a State department dealing with historical documents was lately under the belief that the Hunterian Library was in London. Nay, a member of the University General Council only five years ago thought it was in the University Library.

William Hunter at one time, 1765, entertained the idea of gifting his collections to London, and approached the government of the day with a scheme of a Medical School, which was supported by some of his powerful friends. Luckily the offer was not attended to, was even discourteously treated, and so Glasgow became richer by a noble gift, the University the possessor of a great treasure-house. At Lincoln's Inn Fields there is no such library.

When all has been published that bears on W. Hunter's work he will not, I venture to think, be found to fall behind his better-known brother, who was in some respects a lesser man. John confined himself to his professional studies with truly admirable results; William drank the cup of intellectual life with both hands, and, if he did less in the way of publication, he certainly established a far wider claim on gratitude. He did many things, and all well. An admirable teacher, a successful practitioner, of unrivalled skill in the making of preparations, these would exhaust the powers of an ordinary man. But Hunter was, besides, a man of society: no practitioner moving in the upper ranks of courtly circles—he was attendant on royalty—could live a life of learned seclusion; he was the friend and associate of Sir Joshua Reynolds; he was known throughout Europe as among the virtuosi whose purse ministered effectively to a cultivated taste. In those days any one who gathered objects of interest was spoken of as a collector of curiosities: Hunter was that and something more. The tusk of an elephant found in the English Channel set him to enquire how it might have come there, and to discover that there was a bed or beds under water whence it probably came. There are notes about all the animals whose skins or skeletons he added to his museum, largely anatomical, but prompted by the true naturalist spirit. He bought coins and medals, at first perhaps promiscuously, but latterly, indeed at a very early stage, he was rather fastidious; dealers sent him catalogues, but the purchases were selected

and directed by him. Of that remarkable cabinet part was catalogued by his trustee, Combe, whose *Catalogus Nummorum Urbium et Populorum* is still a book of reference. Time has impaired its value in so far as more recent discoveries and fuller knowledge always tend to supersede the labours of the pioneer; and so there is need for a new edition. That need will soon be more than satisfied; it has been already announced that a wider view of the *Urbes et Populi* has been taken, and that a practically new catalogue will be published at the charges of a citizen who rightly appreciates the value of the cabinet, and who, some years ago, learned the interest of these coins in the historic lands of which he became possessor. Mr. Stevenson has set a noble example; Glasgow has never been remiss in furthering the interests of the University, but this is the first gift which secures to it the means of spreading the knowledge locked up in its treasures over all the schools where learning is cultivated. Some years ago that wise friend of the University, A. B. M'Grigor, contemplated the raising of funds to secure the publication of a catalogue of the Hunterian Library, as he had helped in the matter of the University Library. He died *re infecta*, some of the friends associated with him in the design are also dead; but I trust that other friends will accomplish what he was permitted only to contemplate.

For the library is as remarkable as the coin cabinet. The same intelligent personal supervision was manifested in choosing from sale lists, even greater care to obtain exactly what he wanted. It is known that he often changed specimens of coins, while the bills of dealers and auctioneers abundantly show that even large sums represent these alterations; but the catalogue in MS. tells nothing of this: coins and medals are marked as Hunter's which are not in the collection now. This is distressing, for these attributions are in public documents on the strength of an inspection of the MS. catalogue by one who assuredly did not check the entries with the trays, and so I find fewer examples of

some, many more of others than there were at one time; an important type is wanting, but important types are not recorded. When a catalogue is made, these errors will be put an end to; at present they are vexing.

His five years at Glasgow University equipped him for a great deal of the study he engaged in, though how he found time for it is a marvel. You will expect me to tell you the principle on which the library was gathered, but I cannot. I fancy he changed his mind more than once during the work, and that the addition of bibliography to the ordinary motive of a practitioner in gathering a working library of medical books came after financial success and social popularity brought him in contact with men of letters and leisure.

I have roughly estimated the number of books belonging to different epochs, and find that it contains 381 works (not volumes) dated prior to 1500; 249 between the century and 1525; 1715 published in the next 75 years, while the following century furnished 1486 to the library. The remainder of the books, some 7000 in round numbers, are (I speak now of volumes, not works), current professional books, serials, and general literature. The old catalogue, prepared in the early days of the century, is a little embarrassing, for it is not easy to disentangle the pamphlets, and yet these are in interest as in bulk a very valuable possession. Everything was preserved; endless controversies and squibs regarding a notable fraud of the day, the rabbit-woman of Godalming, vaccination and inoculation, a charming gathering of all the objurgatory language that medical men were (perhaps are) capable of applying to each other when crossed in debate or anticipated in discovery. The medical controversies already mentioned form a choice collection of considerable psychological interest. Last century was the age and paradise of pamphleteers; but though so many made use of this weapon, though anonymous pamphleteer was, often justly enough, a term of reproach, the injury to literature and to the people was not great. The society

journalist of to-day was distributed between the harmless newsletter man, who chronicled Miss Blank as a "catch," and gave the amount of her fortune, and the Snake of Sheridan's comedy who stabbed in the dark, not always for pay that made the trade profitable. Pamphlets were not to be had daily for a halfpenny, as newspapers now are, and that restricted the area and amount of their evil influence. But they went fully into the matters which were their cause or excuse, and had at least an appearance of sincerity: they were not ostentatiously and defiantly superficial. Hunter had his share of this form of publication, always in his own name. Douglas and others thus fought the battle over the employment of man-midwives, a controversy easily settled in practice by Royalty, for Hunter and his colleagues were not admitted to the queen's chamber till the child had been born, practising in the palace as if in the harem, after a fashion not readily realised by us. Pamphlets on the South Sea Bubble have kept me idle when I ought to have been otherwise engaged. The vicissitudes of East India Stock and of its management bulk largely,—surely Hunter or his friends were heavy holders. Ventures in the American colonies might be deemed responsible for the wonderful collection of books and pamphlets regarding them. I prefer to impute these collections to a restless interest in everything and a quick comprehension of the issues raised. After all, these ephemeral writings are of the deepest interest to those who would know the shifting popular opinion in the critical days of the middle eighteenth century. Besides the bundles of tracts awaiting the binder, there are, among the bound volumes, many containing rare tracts as to the early condition of the North American colonies, sheets of date 1649, others telling of events in 1745, Lovat and Balmerino figure, and the young Ascanius in various lights (or shades). Peter Low, 1611, is in the company of James's powder, Smollett on the Bath waters (not so interesting as the account in *Roderick Random*); but more precious are Sir Joshua's addresses to the Academy, as they

were annually delivered, and a set—alas! not quite complete—of the Royal Academy catalogues. Shakespeare's poems, 1640, single plays—as King Richard III., 1629, Henry IV., 1599, Hamlet, 1676, as well as Two Noble Kinsmen—are random selections. John Knox, the champions of Queen Mary and of her execution, are impartially present. Tarbet's defence of King Robert against the imputation of illegitimacy is interesting in its 1713 edition (the second), for among the MSS. is a copy bearing Tarbet's signature, but wholly unlike either text as printed. The Charge, the Tryall of King Charles, and the speech at Whitehall, separate prints of Spenser's poems, the Souldier's Catechism, 1684, pamphlets of Drake and Raleigh, nine consecutive volumes of American documents giving the lucubrations of the Mathers and Cotton, the new passage to Cathaia, 1576 and 1584, a MS. of Dobbs on the North-West passage, and London almanacks about 1772. Need I say more to make clear that there is much to be done in giving account of the collections? Whoever undertakes the task has a delightful time before him. Labour it will mean, pleasure also, none the less to my mind that it involves desultory reading, of which I am a shameless admirer and inveterate practitioner. I always try to inculcate this taste on my "grave and reverend juniors," as Huxley happily termed the prematurely accurate youth who had lost some of the pleasures of youth by ignorance of the unscientific fairy tales which delighted a simpler age. He who ransacks pamphlets may waste time; but, if nothing else, he will learn, unless he is a fool, how to set about the next investigation so as to keep void of offence a time-saving conscience, if a librarian respects such a thing where books are concerned. It is said—and, I fear, believed—that a librarian who reads is lost. My experience of librarians who do not, makes me wish that they were lost also. The foolish aphorism was surely meant to apply only to those who read without power to make after use of what they had read. But I must quit this dangerous ground.

If the earlier efforts of Hunter were directed to the gathering of a professional library, his latest were guided by artistic considerations which were suggested by his coin and medal acquisitions and increasing intimacy with the leading artists of the day, not to speak of the opportunities placed in his way by booksellers and auctioneers, here and abroad, so soon as his reputation was established as a wealthy patron of the fine arts. Few of the fashionable engravings of the day but were offered to him. His taste in painting is seen in the small gallery he formed, a remarkable one for his time and position. Sir R. Strange engraved "Originals in Dr. Hunter's possession," and fragments of prospectuses show how wide were Hunter's interests in schemes not always carried out. Apart from works on coins and classical antiquities, the French artists Gravelot, Eisen, Moreau, Audran, are represented in choice works, not always fit for prizes in ladies' schools, but, like Hunter's Academy diploma, precious as illustrating an art no longer practised, killed by photography and modern haste. Only art motives can explain the purchase of Kaempfer's book on Japan, and several volumes on branches of Natural History, in which it was impossible for even Hunter to take more than a gentleman's interest. I use this foolish phrase of purpose, for it recalls the curious side light on professional conventions cast by Smellie, Hunter's compatriot and rival, in a letter which I found last summer in the library, and which Dr. Glaister, not then contemplating a second edition of his life of Smellie, kindly allowed me to publish. In that letter (*Brit. Med. Journal*, Aug. 29, 1896) Smellie analyses his own character in a strange way, and, speaking of his relaxations, says they were "designes in drauing and musick: but no more than what was fit for a gentleman to know, and he used to jock those who spent too much time in these recreations by axing if they were no asheamed to perform so well." Hunter was not the man to hold himself in obedience to such narrow views.

It surely was for art's sake that he bought the MSS., at

least a large number of them. We there find a series illustrating many of the steps which illumination had to take before it finally gave way to the woodcutter, who at first followed in the line of his slow, refined, and painstaking predecessor. Heath Wilson was well aware of the importance of the lessons to be learned on this subject in the Hunterian Library, and used to point out to visitors, whom he brought to admire his favourite objects, the passage from the earliest symmetrical designs to the later freer work. Hunter amid his gathering of books of recipes did not neglect those dealing with the colours to be used in illumination; he almost seems to have desired to understand the mechanism adopted by the monastic scribe. Students of Pollard's works, *The History of the Title Page*, or the *Early Illustrated Books*, in the Books About Books series, will find means of following the gradual preparation for the swift transition from the one to the other kind of art. I fear it is not in my power to show the origin of the book-plate as a detached print of the patron's arms, which in place of standing as the third or fourth leaf, was fastened on the front board; I have no detached plates. The great *Vita Christi* is a monument of untarnished colour; but the *Venerie* of Guillaume Tardif is, to my thinking, a work of unrivalled beauty, incapable of being excelled. The Rev. Prof. Lindsay has found in the illuminations of a *Boccaccio* important material for the demonstration that ecclesiastical vestments grew out of the ordinary costume of the day, fixed to a special duty, as was the dress of the Blue Coat School. I am sorry that the ordinary morals of the time are also illustrated in that volume, and that, as François Michel showed me with a little malice, the Scottish Guard were in this respect true children of the time, not better, let us hope not much worse, than their neighbours. Among documents interesting in virtue of their contents is an early MS. copy (1546) of the *Canterbury Tales*, not of importance save of the philological sort; for this MS., like many another, came from the eastern counties; indeed, this is a very prominent fact regarding

the collection. Thomas Martin has left record of his ownership on many a MS., and the offence of displaying so much penmanship on prominent places is scarcely atoned by the bibliographical notes, often curious, elsewhere added. Occasionally we get a hint that a rare volume may have represented a fee not otherwise to be met—let us hope that the service rendered justified the sacrifice, on the altar of gratitude, of a family treasure. Again a surgeon in Norfolk offers a MS. with a courtesy which suggests Richelieu's jest at himself that he could be bribed by a book. While preparing his edition of *Chaucer*, Urry borrowed a copy of the Pynson edition, and a MS. note directs it to be forwarded to the shop of a coach-painter, Haymarket. It, too, came from Norfolk, and it did not go back. Another MS. is ostentatiously declared to be the property of the children of a deceased gentleman; but its possession by Martin suggests that it had been sold by the family, perhaps to save disputes. Amid much that one learns, albeit of little use, there is much cause for regret.

Among the MSS. is one which, if the evidence is satisfactorily decided, throws valuable, as unexpected light on the methods of composition of 17th century alliterative romances. We cannot wish well to the soul of the man who carefully washed out the name of the former owner of the French *Roman de la Rose*, for the sake of recording his own insignificance. Fragments of accounts, draft indentures and the like, are inscribed on the broad margins or vellum leaves, usually, however, too brief to guide to the identification of the writers, though sometimes a convenient date is thereby given; but it is matter of rage to find blanks or margins freely excised, even though parchment was dear at the time. It is only one degree less culpable than the utterly inexcusable practice of some people to cut out blanks so that an old leaf may be available for binding into some other volume to which the insert is foreign, and misleading to the collator. Compared to this, Grangerising is respectable, though there is less blame if the Grangerite destroys

the volume plundered, as robbers used to efface the evidence of their crimes by killing their victims: better a lost than a mutilated book.

Bartholomaeus de Proprietatibus Rerum is among the printed books, represented by the editions of 1482 and 1535; its interest is enhanced by the presence of no less than four MSS., one of which, of date 1372, dedicated to the King of France, Charles V., contains a number of cuts showing costumes, in outline merely, not yet coloured. Lydgate's version of the *Fall of Princes* is a beautiful volume, dated 1440; Parkers' *Dives et Pauper*, as well as the *Musica Evangelica*, two MSS. of the *Catholicon* of Joannes de Janua, one of which, of 1407, bears the autograph of Peter Burmann; the fourteenth century *Roman de la Rose*, already mentioned (not collated since it became Hunter's), and Chaucer's version thereof; two copies of the *Myrrour of the Lyfe of Christ*, Guido de Colonna's *Destruction of Troy*, bound up with Mandeville's *Itinerary*—these occur to memory as a fair example of the purely literary interest of the collection. But there is to be added, though the list would be too long for enumeration now, a number of historical works, the acquisition of which, so extensive is the list, seems due to so extraordinary a chance that I must by preference ascribe it to deliberate intention.

There is a list of the Hunterian MSS. which apparently has escaped the attention or the memory of English scholars, though it is much used by my Continental correspondents, Haennel's *Catalogus Librorum Manuscriptorum*, published in 1839. I pray you to help me in recalling attention to it, pending the time when it will be possible to publish a new catalogue. Had it been better known in England, the Chaucer MS. would have been earlier known. Norris' *History of Launceston*, lost sight of for more than a century, would have been recognised instead of sought for through the columns of *Notes and Queries*, and myself spared the need of answering the repeated query, "Is so and so in the Hunterian Library?" I am not airing a grievance so much

as seeking to prevent a serious inconvenience recently brought to my knowledge. Last autumn a scholar inspecting early English works, and induced to come by my answers to his queries, saw Haennel and found therein reference to another MS. in an old library not far from his home.

The migrations of MSS. are not easily traced: the *Cartulary of the Priory of the Holy Trinity in Aldgate* is in the library. About ten years ago the accomplished librarian of the Guildhall sought to borrow the volume for the purpose of making a copy. Such a loan it is not competent for the Trustees to grant, but a recent correspondent informs me that "the Guildhall copy" suffices for his purpose. The copy in the Guildhall, without history, is of early 19th century, and very incomplete. The MS. belonged to Norris, the author of the *Launceston History* just mentioned, and probably came into Hunter's hands through the same source, whatever that was. Stow refers to it in his *Survey*, so the probability of a copy having been made is very great. At present I am asked to supply a copy of the Lambertus MS. to the Belgian Historical Commission: how did the letters of the unlucky correspondent of Pope Calixtus get into Hunter's hands? Some years ago Ulysses Robert published a portion of the MS. in the *Bullaire de Calixtus*. Enquiries have been made regarding a MS. titled, in Haennel, *Philo de Spiritu*. It is no theological Philo, but a chemist, who recorded the results of the distillation of oils. No one has helped me to identify this Philo; perhaps perusal of the MS. might give a clue; I have tried, but my courage failed, for the script is the worst in the whole collection, well deserving the curses lavished by Aeneas Sylvius on an evil writer whose soul he as Pope put in jeopardy for his conceit, selfishness, or ignorance; anyhow, he was a curse to a busy man. On the other hand, there are specimens of caligraphy so exquisite that they were probably expiatory performances, penances, rather than labours of love. Such an one is the

12mo. *Office of the Holy Virgin* ; nor are the *Horæ*, of which there are several, far behind either in script or ornament. Fowler, Wilson, and Littlehales have examined these, and to their notes the curious may be referred. A *Jerome* was long among the printed books, but a hole in the skin compelled the scribe to divide a word, and so the real character of the beautiful script was evident the first time that it was carefully examined. The oldest document is the *Homilies of St. Basilus*, whose date, 899, was determined by Caspar René Gregory ; it is interesting, apart from its age, as an example of transitional Greek script. Of Oriental mss. the number is large, the beauty great. Of these I cannot say much of other people's knowledge, nothing of my own. Some years ago a young Orientalist took it into his head that he could not get access to the library, a curious delusion, since he had never tried. When he was enlightened on the subject an appointment was made ; he came, stayed a short time, but did not return, his wants and grievances expired together, a strange instance of *cupido negati*, or rather of the inverse. Two volumes deserve special note : one is a series of draft proclamations, Queen Elizabeth's signature being autographic, some of these, referring to the trade with Spanish Netherlands, being curious ; the other holds a large number of letters addressed to the great Earl of Clarendon, and dealing with all kinds of matters, among them the doings of the earl's factor.

Hunter's personal mss. are scattered, a few here, the bulk in London in the careful possession of his representatives. Dr. Teacher is at present preparing a catalogue of the anatomical series, the cost being defrayed by the Bellahouston Trustees. The catalogue will be prefaced by a general account of the preparations, and we hope the opportunity will then be afforded us of making more of Hunter's work available. Some of his papers are worthy of being reprinted, and it is possible that others were left in such a state that they may be published without impairment of his reputation as a careful investigator to whom inaccurate work was

abhorrent. A remarkable instance of this fastidiousness is known. He had arrived at a conclusion as to a particular disease, the *morbus gallicus*, then keenly discussed. He based his views to some extent on the statements of Martyr, but before publishing he found reason to suspect that Martyr was not absolutely reliable, as he spoke from memory after a long interval. Hunter never delivered the paper. Such an edition of his writings would be a worthy memorial of him, and would commemorate none but him whom it was intended to honour. Such papers as I have seen are records of the restless vivacity of the man and the often unconventional ways in which he uttered his acute observations. I cannot understand how William Hunter is spoken of as an unlearned man. He had an excellent education, knew how to take advantage of every opportunity of adding to his knowledge, and had a facility of just expression, which to Smellie's slower intellect was objectionable.

It cannot be doubted that Hunter intended to have full representation of the progress of early printing. The numbers already given prove the bibliographic value of the library. Some details may be interesting. "Thirteen Caxtons" is a goodly possession, and I do not allow for one credited to this library, but not there found. It was probably exchanged; perhaps it was too close a duplicate. Duplication, however, was not dreaded, for there are repetitions, and one may fancy these laid aside as the fund for excamb when good opportunity turned up. It is needless for me to recapitulate to bibliophiles the names of the presses and printers, which form a fairly complete series from the later illustrated MSS. of the 15th century to the middle of the 16th, when we may take the interest of the contents rather than the production to determine the value of printed works. It is extremely interesting to follow the comparatively slow replacement of the scribe by the printer. I have only two block books, as usual composite. Would that we had here a copy of the *Mirabilia Romae*, or of the *Speculum*, two books which bridge the gap from MS. to printed volume,

though the time when one ceased to be and the other came to be general were separated by a longer interval than the successful enterprise of these two books would warrant us in anticipating. Even in the 17th century I find from one MS. of a historical work that an obstinate adherent of the old ways might still prefer the labour of the scribe to the mechanism of the printing office. It was a respectable stupidity, which we cannot afford to despise, since even now there are those who will none of the process reproductions, just as there are men of science, and rightly so called, who think it waste time to read a book of greater than ten years age. The copy of *Theverdanck* in the library is lovely, the book which so long puzzled even printers, divided between various theories of the production. The type is not worn, the vellum is fine, the ink fresh, and the drawings of Hans Schaufelein charming, though Pollard may be right in thinking that careful printing on vellum has given them a factitious value. The volume is truly imperial, and it is a monument to Maximilian that he did more to advance the art of book illustration than he contributed to literature. This is not the only vellum book. Early paper was honest, but not pretty. Nowadays we do not find "beauty coupled with honesty," however we may desire that honey be a sauce to sugar. "Cotton" bulks too largely. The Aldine *Plato* is also on vellum, beautiful white skin without doubt, white because some earlier writing has perished to yield good material. It is too late to lament over this. We can rejoice that, if murder was done, it was done to good purpose. For the Greek type is the fairest of the Aldine press, the ink as glossy as the day it was wet in 1513. Dibdin's enthusiasm was justified when he spoke of this book as the chief treasure of the collection. To crown all, it is bound by Derome in blue morocco. Askew secured it from the Harleian collection (I.5404). At Askew's sale Hunter paid £55 13s. for it. This book excited the evil concupiscence of a rarely gifted scholar only one degree less than the *Anthology* of 1494, for which Hunter paid £28 17s. at

Askew's sale. Along with these goes the *Cicero de Officiis*, 1466, on vellum. To this group of bibliophile luxuries belong the *Decretals of Boniface*, 1473; Fust's *Epistles of Cicero*, 1466; Claude de Seyssel's *Translation of Thucydides*, Paris, 1527; *Valerius Flaccus*, Paris, 1519; *Lactantius*, 1471; Aretino's *Translation of the Epistles of Phalaris*, Flor. S.A.; *Epigrammata Graeca*, Flor., 1494; the Mainz *Livy*, 1505; *Bartholinus de Bello Norico Austriaco*, 1516; *Il Moro de Heivodo*, 1556; *Dionysii Areopagitae*, 1562; *Articuli Ecclesiae Anglicanae*, 1563; *Petrarch*, 1501; Augustine's *Vita Christi*, Mogunt., 1470; the *Breviarium*, 1478; Pynson's *Sarum Missal*; last, but not least important, the *Vesalius* which Sir W. Stirling Maxwell reproduced in facsimile, a work which has the double interest that it is a noble production of the press, and that the plates are the handiwork not of Titian, but of his pupil Stephen von Calcar; the anatomy of the human body was ennobled by the combination.

Need I say more to impress on you the judicious lavishness of the founder than that the *Editiones Principes* number something like 200? I have made a rough census, the figures are not absolutely exact, but the catalogue is only in progress. Parenthetically, let me say that had David numbered the people from a MS. catalogue, the task would surely have been counted its own adequate punishment. I find Æschines with 10 entries, Æsop, 9, Aristophanes, 19, Anthologies, 5, all of the 16th century; Aristotle, 58, beginning at 1495; Bartholinus, over 40; Boccaccio, 17, the first 1472; Catullus, 13; Cicero, 58, of which 21 are fifteeners; Ovid, 12; Plato, 23; Plutarch, 23; Homer and Scholiasts, 26; Dante, 4, but 3 are fifteeners; Tasso, 6; Milton, 9. In short, there are nearly 800 entries for classical authors, and for many of these entries there are not texts merely, but every sort of commentary and translation: it was as much a literary man's collection as a bibliographer's. What this means you will understand when I recall that Hunter went over sale catalogues,

marking with his own hand what he meant to buy, that the catalogues were almost exclusively lists without the bibliographic helps which make selection easier nowadays—the purchaser then having to depend on his own skill and knowledge. Professional purchases were as far as might be a book lover's as well; Galen has 57 entries; Hippocrates, 47; Avicenna, 14; but 7 editions of Mundinus fitly go with the Vesalius. The *Hypnerotomachia* of Poliphilus is in two editions—1499 and 1525—both perfect, a rare fortune, as there are people who are fond to find in innocent things the evil they bring with them, and so deface plates. These two books are precious to the bibliophile, I wish I could add to the reader, for truth compels me to say, perhaps to my shame, that I can only use for the work the language of Dionysius' criticism on the style of Polybius, as quoted by Professor Murray, "he is a writer whom no human being can expect to finish." May I shelter myself behind my colleague's amiable tolerance for those who tire of Marcus Aurelius? "they are not necessarily narrow-minded or vicious in taste." But as a book it is admirable, the print artistic, the woodcuts exquisite in their charming simplicity of line, and the proportions such as we dwell lovingly on. Unique possessions have not much attraction for me, I confess, and shall not regret if the *Terentius Maurus*, Milan, 1497, is no longer unique. Intrinsically it is of small value, though bought from the Harleian collection. Credited with being unique, it only cost Dr. Taylor—the editor of *Demosthenes*—four guineas. I am more interested in the collection of *Rabelais*; it is a strange group, perhaps throws light on the range of that author even in our own country. Not so long ago, the children of the coast towns of Forfar were familiar with the name of Gargantua and the less choice jests of a writer, of whom I have somewhere read, that after he had made a shrewd hit he seemed anxious to conceal it with dirt. Now Hunter had the works in the three Lyons' editions, 1558, 1573, 1596; Pantagruel, 1534; Gargantua (the abridgment by Alco-

fribas), 1542; and the Valence print of 1547; Panurge, 1615; and an edition of 1741. The Alcofribas abridgment is a small tract, a sort of chap-book, and was perhaps the form under which the knowledge was disseminated from the Abbey of Aberbrothock, as a centre of light and leading to the natives of Forfar. *Bartholomaeus de Proprietatibus Rerum* was printed in 1482 and 1535; there are as well four MSS. of this work, one dated 1209, the other two have no date, but the fourth belongs to about 1372, and is dedicated to Charles V. of France; the cuts, though unfinished, are very fine and repay study. There are two MSS. of the *Myrrour of the Lyfe of Christ*, besides the Caxton print, and the differences are interesting. Of the *Catholicon* of Joannes de Janua there are two MSS., one of them the property of Peter Burmann. And there are three MSS. of Higden's *Polychronicon*, besides the print.

Whence came all these treasures? Askew, Taylor, Ratcliffe, Mead, West, Croft, Cesar de Missy of Berlin, Colbert, Count d'Hoym, Jesuit colleges at various places, other monastic libraries, Royal libraries of France conspicuous by their fleur de lys, the Harleian, these are among the more prominent, but a vast number came from private collections which we cannot now trace. It is unfortunate that so many of the original book-plates were covered up by the new plate adopted by the trustees when the Museum came into the possession of the University; some of these I have uncovered, but they are those of the private collectors chiefly. How libraries, so to speak, broke from their moorings and drifted, may be learned in part from Sanders' book on Book-collectors. If it is not always easy to trace well-known collections in their wanderings, less likely is it that we shall learn more regarding the sources whence Hunter, omnivorous in this respect, drew his stores. Even care will not prevent removal of books desirable to prevent wandering; some years ago the Russian Government sought to recover the MSS. of Gottfried Bayer, which had disappeared from Russia. It so happened that there were

none of any political importance, and of the valuable philological papers I have published a list in the *Sinological Journal* of Paris. One of the mss. is of very pathetic interest, the narrative of incessant labour in China, of failing health, of hopelessness, but of unabated courage and heroic devotion to duty. I wish there were some of the book lists of the early printers; the nearest approach to anything of the kind is the specimen sheet of the Baskerville press, which dropped one day out of a book not printed at Birmingham. It goes with the stereotype plate of Ged's *Sallust*, the Scottish printer having priority by several years over Didot, whose name is now commonly identified with an improvement which, while it makes books easily multiplied, also renders cheaper the production of newspapers.

It would be ungracious to those who seek to make books pleasing were I to omit mention of the bindings. The Grolier Club in the United States has set an admirable example, not yet followed so far as I know, but well worthy of imitation. For several years I have set out specimens of bindings in the show-cases, and have lately extended the selection. Grolier is there, with the other noble friend of learning, Maioli; Derome, Padeloup, and their successors and more or less successful imitators are well represented. There are curious copies of Grolier, that seems to have been taken as the easiest to deal with, the mistake being not uncommon that simplicity is simple, whereas it is usually consummate art. Maioli has escaped, the mechanical difficulties having been better recognised. Doublée bindings are not scarce, one pannelled with citron morocco being very fine. A French binding stands at the head of the fantastic, being inlaid, five pieces of different colour on the front board. There are silk linings; but the quaintest use of this material is the sewed cover of Elizabethan age, a silver threaded centre having at the corners portraits in which one may, if he chooses, recognise Ben Jonson. But the lover of simplicity will rest with content on the plain *veau*

fauve of D'Hoym, or the citron morocco of a choice number of goodly quartos and folios. These never attract the attention of the ordinary visitor, who would likely go into ecstasy over an impossible landscape on a vertical plane drawn by an up-to-date person who has taken the Egyptian book of the dead as his model, as if that was the culmen of art. It has been pointed out to me by a practical binder (amateurs lose much by not taking lessons from practical people) that there is a good field for studying the progress of manipulation, the methods of using tools. Certainly there is a useful set of embossed bindings. Those who fancy wooden boards would find that there are tricks to be learned even there, that the old men are not the innocents we are often asked to believe them. The University Court allowed a sum for the repair of the Hunterian books, and a most judicious liberality it was. The first thing was to stop mischief; the second, to improve. The two are practically the same thing, and the result has been most satisfactory. The Messrs. MacLehose selected Mr. John Macbeth, and under his hand the looks of the books have benefited; their lives are thereby prolonged.

Long as this address has been—too long, I fear—it is, after all, a mere fragmentary sketch. Enough, however, has been said to show you that, if you are the directors of a library whose object is fulfilled by its usefulness to the public, Glasgow has reason to be proud that, among other claims on the city, the University is the possessor of a collection becoming to a seat of learning, and an object of interest to all scholars. The many applications for reference to its volumes are a joy, for they furnish me with a legitimate excuse for giving time to the desultory reading I love, but do not always venture to indulge. It is a pleasure—a rare pleasure—to have an interested visitor; it is a higher one when a scholar, an authority in some department of learning, comes, for then I learn what will be useful for others, and the more eminent the bibliographer the more ready to impart knowledge; those who have

gathered by years of toil are generous in imparting the fruits of their studies; many an entry in the catalogue is due to such kindly informants, and it is not always easy to record the service and so to avoid the appearance of ingratitude.



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