

**Edward Forbes, Honorary Academic of the Royal Scottish Academy and John Goodsir  
“Companions and Collaborators”**

**By Michael T. Tracy**

The Manxman, Edward Forbes, was lionised by his colleagues as a talented naturalist, zoologist, palaeontologist, and a pioneer of biogeography. However, this esteemed scientist was also a poet and draughtsman with such discernible artistic abilities that very early in his career he moved to London to study drawing, but turned his back on art as profession when refused admittance to the Royal Academy. Despite this apparent setback, his love of drawing would continue for the rest of his life with his fanciful drawings decorating some of his surviving letters, manuscripts, and publications. Although most of Forbes' papers have been lost, fortunately some knowledge of his life can be gained from his only major biography, George Wilson and Archibald Geikie's *Memoir of Edward Forbes, F.R.S.* (1861). More recently, Eric L. Mills has stated, in an article entitled “A view of Edward Forbes, naturalist,” (1984) that “Edward Forbes's life has become a stereotype, set in a mid-Victorian social frame.”<sup>1</sup>

Housed in the Departmental Library of Zoology at the University of Liverpool is a literary and scientific curiosity, a two-page lithographed circular, which is evidently the prospectus of Forbes' “Oineromatic” [a fictitious word perhaps meaning “Wine-serving”] Club, the precursor of the Universal Brotherhood of the Friends of Truth formed by Edward Forbes and his friends at the University of Edinburgh in the session of 1834-35.



The highest aim of Man is the discovery of the Truth ; the search after Truth is his noblest occupation. It is more—it is his duty. Every step onwards we take in science and learning tells us how nearly all sciences are connected. There is a deep Philosophy in that connexion yet undeveloped,—a Philosophy of the utmost moment to man—let us seek it out. The world in which we live is a beautiful world, and the Spirit of Omnipotence has given us many pleasures and blessings—shall we not enjoy them? Let us refresh ourselves with them thankfully, whilst we go forth in our search after Truth. We are all brethren, but it has pleased God variously to endow our minds: Some delight in one thing, some in another: Some work for the good of the body, and some for the good of the Soul: Let us all work together in fellowship for our mutual happiness & joy: Wherefore should men quarrel one with another, because they hold different doctrines? Such as seek for Truth in the right spirit sympathize with each other, and however opposite may be their present opinions, revile them not, but assist in their developement knowing however wide apart may seem the paths they have chosen, one goal is aimed at, and if persevering, both must meet in the one wished for Temple. Let those who feel the spirit to develope the Wisdom of Creation, and to act for the good of their fellow men, strong within them, unite together in a bond of fellowship each Brother devoting his time and his energies to the department for which he feels and proves himself best fitted; communicating his knowledge to all, so that all may benefit thereby, casting away selfishness and enforcing precepts of Love: By such means Glory shall accrue to his order, so that it may wax powerful in intellectual strength, and become a mental and a moral safeguard to the World, and a bond of union among all nations. Such is our Brotherhood.

In the subjoined scheme of our objects and principles, the Candidate will find what is required of him: The ties that bind us together are ties of Intellect and Love. Should money ever be wanted for the promotion of the objects we have in view, it must be contributed only as a voluntary gift, and not as a price of admission into our Fraternity.

Fig.1. Prospectus of the Oineromatic Club, circa 1835, from *Proceedings And Transactions Of The Liverpool Biological Society, Volume XXX, Session 1915-1916*, page 96

Forbes formed lasting friendships with members of the Club which later became known as the Universal Brotherhood of the Friends of Truth which was devoted to truth, knowledge, and good fellowship. Throughout his entire life, Forbes used the triangular insignia of this club as a symbol on his letters to the closest of his former student friends. While a student in Dr. Robert Knox's dissecting rooms he began a life-long friendship with a fellow student named John Goodsir. The Reverend Joseph Taylor Goodsir, the brother of John said of them "Their ages differing only by a year, their mental and moral constitution, as also their intellectual and aesthetic tastes, fitted to work in harmony, even by the striking contrasts they presented - their very physical constitution, both being tall, lithe and powerful men in their respective fashions – by all these things they were formed to be companions and collaborators."<sup>2</sup>

As one of the last surviving members of the once illustrious medical and scientific family of Goodsir, it gives me great pleasure to add my perspective on the naturalist Edward Forbes, the Honorary Academician of the Royal Scottish Academy, and his lifetime friendship with my kinsman, the esteemed Professor of Anatomy of the University of Edinburgh, John Goodsir. This short dissertation will present some of the drawings, sketches, and poems of Edward Forbes and will describe the unique and lasting friendship of these two men; furthermore, it will include all the known likenesses of John Goodsir and finally explore the history and insight behind the contemporary artist Christine Borland's masterful work "Cast From Nature." Consequently, I am honoured to present this work to Sandy Wood, Collections Curator of the Royal Scottish Academy, and Academy members, for whose institution I have had the utmost personal respect and highest regard for over four decades.

### **Beginnings**

Edward Forbes was born on 12 February 1815 at Douglas on the Isle of Man and at an early age began collecting insects, shells, minerals, fossils, and plants. Eleven months earlier and four-hundred and ninety-two kilometres to the north in Anstruther Easter, Fife, John Goodsir was born on 20 March 1814.<sup>3</sup> His early education was enhanced by his parents who encouraged the exploration of the Fife shores. While Forbes was at school at Douglas, he was described as never having his pencil out of his hand and as covering his books and exercises, and the margins

of his Latin verses with sketches of animals and caricatures as well as fanciful doodles or *marginalia*,<sup>4</sup> a practise recognised today as helpful to the generation of creative ideas. Similarly, John Goodsir as a boy received drawing lessons from his mother, a woman of an artistic bent, which imbued him with a love of art almost as strong as his love of natural science, and gave a significant added dimension to his future presentations as a successful lecturer.<sup>5</sup> Goodsir's early drawings can be seen in two works. The first by James Young Simpson, H.R.S.A., entitled "Case of Amputation of the Neck of the Womb Followed by Pregnancy; with Remarks on the Pathology and Radical Treatment of the Cauliflower Escrescence from the Os Vteri," *Edinburgh Medical and Surgical Journal* (January 1841) in which Goodsir drew the microscopic appearance of the compound cell-globules constituting the granules and composing the mass of the escrescence of the tumour. In the second work by John Reid entitled "On the Anatomical Relations of the Blood-vessels of the Mother to those of the Faetus in the Human Species," *Edinburgh Medical and Surgical Journal* (January 1841) he drew the tufts of foetal placental vessels in great detail. However, it was Forbes who took far more interest in the arts and drawing than Goodsir. Forbes is reported as being a gentle and sweet-tempered child, and probably his keenest interests were in living things and wild nature around him.<sup>6</sup> This estimation of Forbes's personality would be echoed after his demise by John Goodsir, who confided in his diary of Forbes's "sweetness of nature."<sup>7</sup> In June of 1831, Forbes left Douglas and moved to London to study drawing under Sasse, a celebrated tutor at the Royal Academy. The careful practise of drawing the outline of classical forms, led him to acquire skills in draughtsmanship that were to stand him in good stead for his future zoological pursuits and publications.<sup>8</sup> In November 1832, Forbes matriculated as a medical student at the University of Edinburgh and so began his attendance at the lectures of Robert Jameson and Robert Knox.<sup>9</sup>

### **The University Days**

Forbes undertook the usual routine of medical classes for three successive years, however, he disliked the study of medicine and, as his old friend and fellow student, John Hughes Bennett would recall years later, "Even his attendance on the purely medical classes was of no great use to him, as he did little else than sketch the features of the professor or of the surrounding students. We, still, fortunately, possess some of the rough pen and ink sketches he then made,



and here give one of the late Professor [James] Hamilton,<sup>10</sup> which he drew at our side when we attended together the lectures of that distinguished teach of midwifery.”<sup>11</sup>

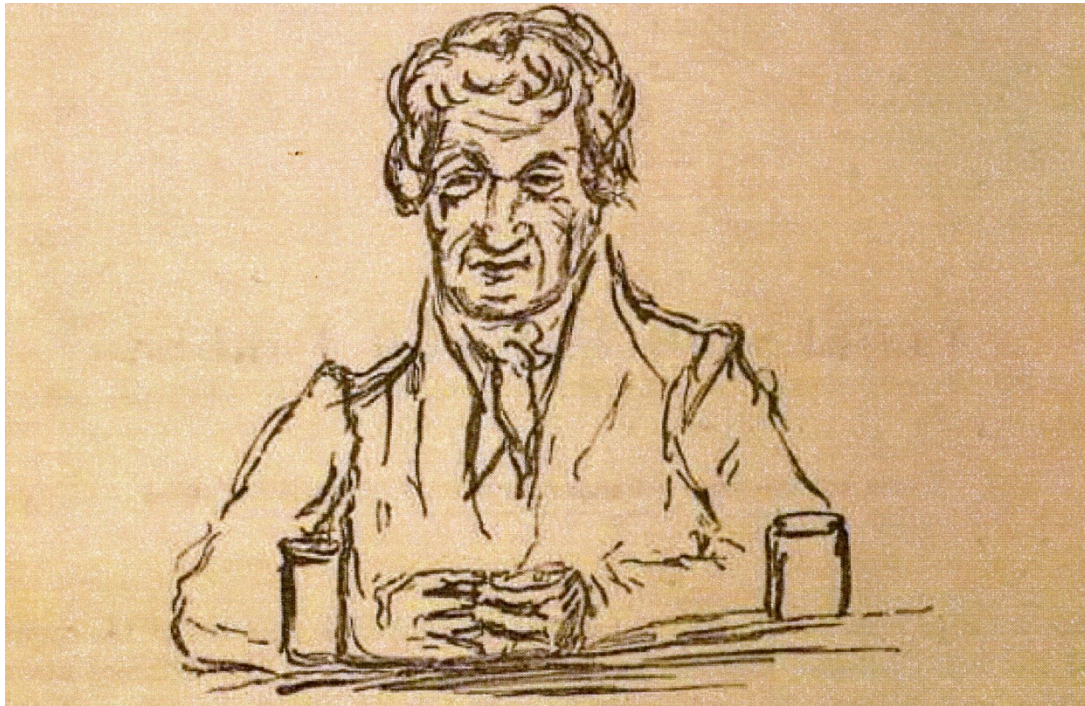


Fig.2. Edward Forbes drawing of Professor James Hamilton taken from *Memoir of the late Professor Edward Forbes* by John Hughes Bennet (1855)

Two professors greatly influenced Edward Forbes during his early years while at the University. The first was Robert Graham<sup>12</sup> the Professor of Botany. In botany teaching practicals of this time the use of a microscope was unknown and consisted solely of examining flowers by pulling them apart. The second influential professor was Robert Jameson.<sup>13</sup> Jameson was the Royal Scottish Academy's Honorary Professor of History from 1830 until his death in 1854. He collaborated with Patrick Syme,<sup>14</sup> R.S.A., in the publication of Abraham Gottlieb Werner's "colour classification," entitled *Werner's Nomenclature Of Colours, Adapted To Zoology, Botany, Chemistry, Minerology, Anatomy And The Arts* (1814), of which a rare first edition is lodged in the Royal Scottish Academy's Library. It should be noted that Charles Darwin took a copy of this book on his voyage on the *Beagle* to identify and record the colours of specimens and many of Darwin's *Zoology* notes quote colours from Syme's translated work. A noted Mineralogist; it was Jameson who unified the study of Geology and Zoology as well as founding the Natural History collection of the Museum of Edinburgh University. As will be seen later,

Jameson not only greatly influenced Forbes but also John Goodsir as well. It was during this period that Forbes sketched the celebrated Professor, Robert Jameson. The drawing has a most interesting history and was in possession of this author's family for many decades. In a letter to Sir Richard Owen dated 6 June 1884, Dr. Robert Anstruther Goodsir, a younger brother of John, wrote, "The other photograph is a reproduction of Edward Forbes' very characteristic drawing of Professor Jamieson. I am making arrangements at present for a small issue of similar reproductions of Forbes drawings of that day. They are now exceedingly scarce, and I believe I possess one of the best collections of them extant *i.e.* from 1835-1842."<sup>15</sup> Dr. Robert Goodsir had taken the drawing to Edwin Debenham, an Edinburgh photographer located at 79 Princes Street, and had a carte de visite made. This carte de visite is in the collections of the University of St. Andrews Special Collections.



Fig.3. Edward Forbes early drawing of Professor Robert Jameson, Photograph Courtesy of the University of St. Andrews Special Collections Department Reference: GPS-Jamieson-1

The drawing was subsequently mentioned in the *St. Andrews University Calendar For The Year 1896-97* as being in the University Library and referenced as a “Photo from drawing by Prof. Edward Forbes.”<sup>16</sup> While less attentive to his medical studies, Forbes used his university days more fruitfully for his future career to investigate the natural world on local countryside rambles. His friend, John Hughes Bennett recalled, “Many are the struggles we have had to resist his invitations on these occasions, in order to follow our own more special subjects of study. With the results of those excursions, his rooms were always littered – specimens of rocks, shells, plants, books, sketches, and scraps of poetry, being intermingled in admired confusion.”<sup>17</sup> Bennett undertook to coach Forbes in anatomy, and tells of the many dismal evenings of yawning over the bones, and of how Forbes would arrange that jovial friends should come in and interrupt – when the textbooks and bones would be thrown aside and the rest of the evening devoted to gaiety and philosophical discussions.<sup>18</sup>

While a student in Knox’s dissecting rooms, Forbes began his life-long friendship with a fellow student, John Goodsir. John Goodsir, who, by virtue of similarity of genius and tastes, exerted a greater intellectual influence over Edward Forbes than any other of his associates, and was the first friend he made while in Edinburgh. By a mournful coincidence, he was the last to leave his deathbed, twenty-five years later.<sup>19</sup> Goodsir recounted their first meeting in Knox’s dissecting rooms. While busy in a corner dissecting a “head,” a tall stranger walked up to him and they soon got into earnest conversation and found that they had many common tastes and interests.<sup>20</sup> On John’s first visit to Forbes’ lodgings he found his new friend with a rare mollusc, *Clarusilia nigricans*, recently found on Arthur’s Seat, which Forbes had boiled intending to study its structure.<sup>21</sup> Referring to their friendship Goodsir stated years after his death, “When beginning his studies in Edinburgh in 1831, Mr. Forbes had already made great advances in his favourite scientific pursuits, and to these attainments, he added remarkable artistic powers and literary acquirements of an extraordinary extent in one so young... He was pre-eminently a naturalist. His attention had never been exclusively direct to any one of the natural sciences. He was equally a botanist, a zoologist, and a geologist from first to last.”<sup>22</sup> Dr. Henry Lonsdale, in his epic biography of John Goodsir, wrote of their friendship stating “The two lads, Fife and Manx, being of tall stature and characteristically visaged, though of different type were the most conspicuous members of the anatomical class: *gemi*ni in their evolutions and craving search for

the lower organisms, they were looked upon as a double star rising above the horizon of their compears.”<sup>23</sup>

Unlike Forbes, John Goodsir was absorbed during his first session with the course of lectures on descriptive anatomy delivered by Dr. Robert Knox in the Old Surgeons’ Hall and was daily in the rooms watching the progress of dissections.<sup>24</sup> The British statesman, Lyon Playfair,<sup>25</sup> a college companion of Goodsir, recalled that “He was a perfect type of a student and an ardent lover of science.”<sup>26</sup> Captivated by his second year of practical anatomy, Goodsir wrote to his father asking for permission to become a surgeon rather than a graduate in medicine.<sup>27</sup> John Goodsir was greatly influenced by Dr. Robert Knox and accorded him enormous admiration. Knox for his part considered John and also his brother, Harry, as personal friends and held them in great esteem, writing they were his favourite former students and assistants.<sup>28</sup> John expressed his debt to his old master and mentor, when in 1852 Knox presented him with his *A Manual of artistic anatomy*. Having “acknowledged the pleasure of reading it,” John added, “I have been astonished to find how much of what I have been in the habit of conceiving as peculiar to my own course of lectures I had derived long ago from you. I assure you I have always been deeply grateful to you as my teacher, and I have always in public as well as in private expressed myself to this effect, and shall no less continue to do so henceforward.”<sup>29</sup>

Forbes, however, considered anatomy a bore and we obtain curious glimpses of student life in Forbes’ accounts, which are characteristically added up incorrectly such as, “Leg, 2 [pounds]” the “Leg” being of course his part in the dissecting room.<sup>30</sup> Forbes also drew Knox during one of his lectures which survives to this day.



Fig.4. Sketch of Dr. Robert Knox by Edward Forbes, Photograph Courtesy of The Wellcome Collection, Reference M0010706

### **The Universal Brotherhood of the Friends of Truth**

In the session of 1834-35, Forbes formed an “Oineromatic” Club composed of the privileged set of his friends who were all highly motivated students in their respective fields of study. .

Known as the Brotherhood of the Magi (Wise Men), it was the precursor to the Universal Brotherhood of the Friends of Truth.<sup>31</sup> The symbol of the Brotherhood was a silver triangle on which was engraved – wine, as “a Union of the Searchers after Truth.” They brought out weekly publications, called the *University Maga*, in which were sketched illustrations of several prominent men of the University and several of Forbes’ early poems.<sup>32</sup> Later, these naturalists, physicians, mathematicians, artists, and poets formed themselves into a group called the University Brotherhood of Truth whose brochure is illustrated below.



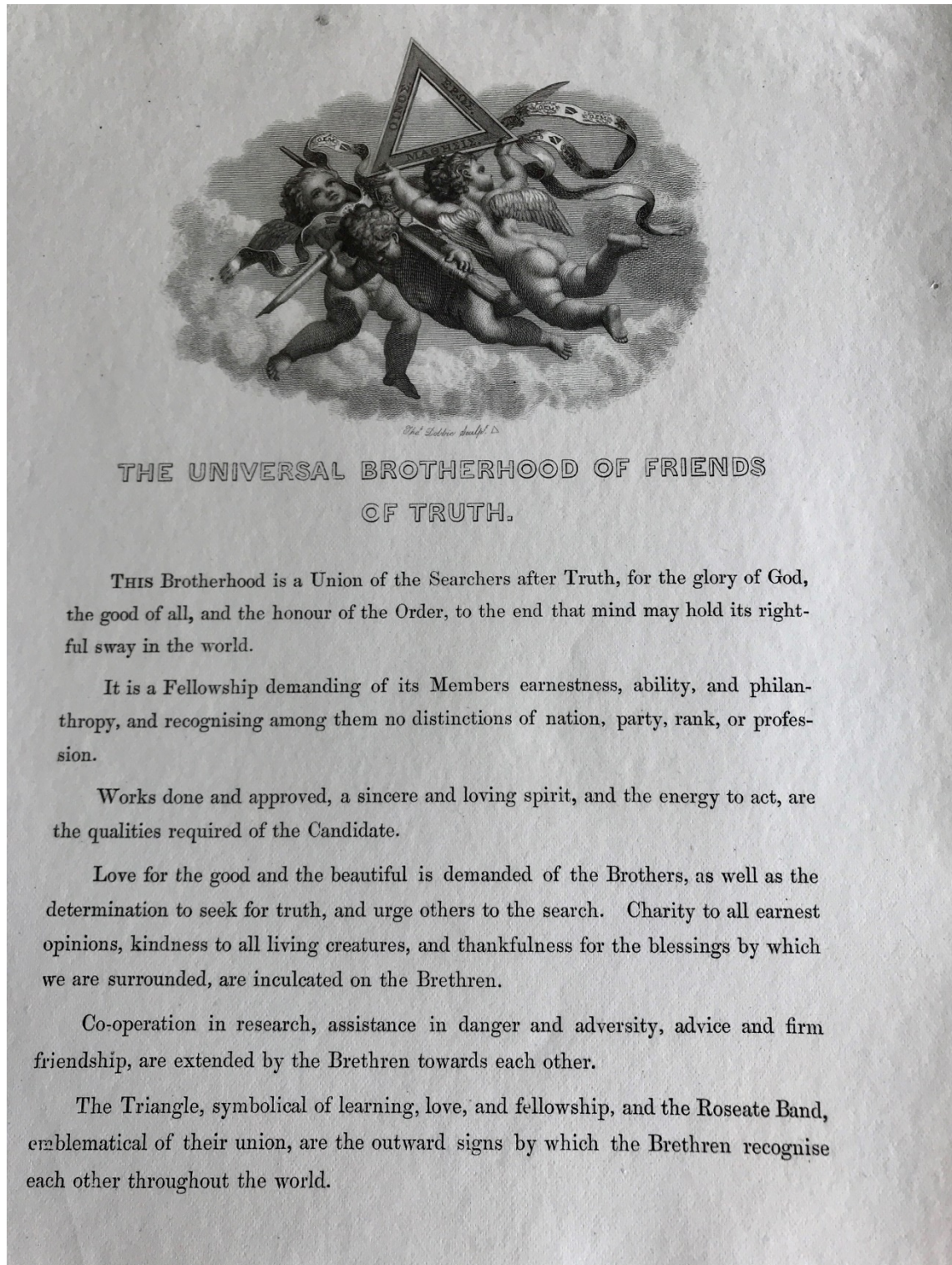


Fig.5. Brochure of the Universal Brotherhood of the Friends of Truth, Photograph Courtesy of the Centre for Research Collections, Edinburgh University Library, Goodsir Papers, Gen 305/4

The Brotherhood adopted as their symbol the same silver equilateral triangle as the original Club on which was engraved three words in Greek – *Oinos* for wine or fellowship, *Eros* or love and *Mathesis* for science or learning. This "Union of the Searchers after Truth" reassured potential members that: the wine was not excessive; the love was brotherly love; and the learning was of a high order.<sup>33</sup> As symbolic of the "Order," the members wore across the breast of a narrow silk ribbon, rose-coloured and black, with the mystic letters O.E.M.<sup>34</sup>

Forbes was clearly determined to find the correct intellectual niche for his enquiring mind and took the momentous decision to abandon four years of medical study in 1836.<sup>35</sup> Having taken a sabbatical year abroad, Forbes returned to Edinburgh in November of 1838 reinvigorated and determined to fully re-focus his university studies for another four years on botany, geology and zoology, complemented by practical field excursions full of new discoveries. On his return to his student social circle, one of Forbes first acts was to propose the election of a new member to the Brotherhood, namely his friend, John Goodsir, on 18 February 1839. Forbes wrote to him exclaiming "You were unanimously united with us in the Brotherhood, so I now hail you as *Frater*."<sup>36</sup> Dr. Henry Lonsdale in his biography of Goodsir would write years later, "Goodsir was a noble example of the brotherhood that sought to bind man to man in ties of home and friendship, love and goodwill; he was a brother of help and of counsel in scientific research, and free from petty misgivings and jealousy of his compeers. No man, after Forbes – the Archimagus – showed a more catholic spirit in maintaining the principles of the 'Order,' no one was more eager for the interpretation of truth, and few, if any, had greater hopes of a day of promise and fulfilment awaiting the patient investigation of organised bodies."<sup>37</sup> It is fascinating to note that while Archibald Geikie was writing the *Memoirs of Edward Forbes* he received a letter from James B. Laughton in which he wrote, "I am the only survivor of the original four who constituted the Oineromatic Club."<sup>38</sup>

### **The Friendship of Forbes and Goodsir**

With these fraternal bonds and shared interests in the discovery of natural phenomena Forbes and Goodsir developed a deep and close friendship that lasted to the grave. Whether this developed into an intimate relationship seems unlikely since homosexuality was punishable by

imprisonment and indeed Forbes married later. Lonsdale wrote that it was pleasant to see these men together “the Scot, of quiet demeanour, staid and studious; the Manxman, with long shinning black hair, moustache, smart attire, sailor-freedom of manner – having so much in common, and such similarity of pursuits, so thoughtful at work, highly observant and gentlemanly.”<sup>39</sup> They both would make valuable contributions to comparative anatomy between 1837 and 1847; the natural history of the sea-urchin and the skeleton framework of the sponges; as well as the anatomy of the amphioxus (Lancelot) which was carefully detailed by Goodsir’s pen. With the opening of the ancient ‘barrows’ in Fife in 1839 and the excavation of the old burial ground of the Abby of St. Leonard’s at St. Andrews, furnished Forbes and Goodsir with skulls, while the limestones and the slates in the quarries near Anstruther, John’s native town, provided them with the remains of fossil fish.<sup>40</sup> Goodsir wrote to his mother during this period, “I do not occupy much of my time in dissecting animals, as I am too much employed with human anatomy..”<sup>41</sup> In the few surviving correspondences that Forbes and Goodsir wrote to each other, they would most always address each other with their last name.

In October 1838, John Goodsir was befriended by a new mentor in the person of Robert Jameson, Regius Professor of Natural History at the University of Edinburgh, a post he held with distinction for fifty years. In point of fact it was the eminent Professor who sought an introduction to John through the good auspices of Dr. Robert Nasmyth.<sup>42</sup> At their first meeting Jameson showed Goodsir great kindness and thence forward the two continued a happy alliance on the highway of science.<sup>43</sup> As in the case of Forbes, it would be Professor Jameson who would now guide John Goodsir along his early career path. On 12 November 1839, Jameson wrote Goodsir, “It has occurred to me, that as you will ere long be with us here, you might get up a paper on Comparative Anatomy for the Wernerian Natural History Society. This will serve as an introduction to you, and let you be known in the College generally.”<sup>44</sup> It was during this period that Forbes and Goodsir<sup>45</sup> encouraged by Professor Jameson, became members of the elite, and learned Wernerian Natural History Society, which included members such as Robert Knox and Robert Brown.

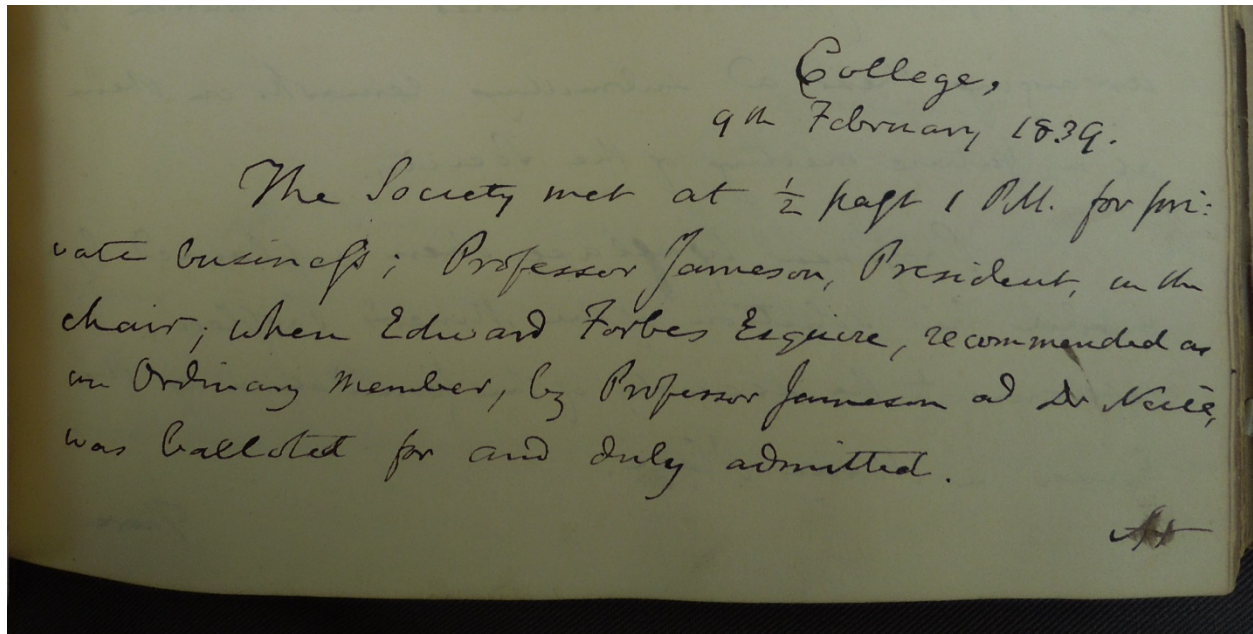


Fig.6. Minutes of the Wernerian Natural History Society, 9 February 1839, admitting Edward Forbes as a member, Photograph Courtesy of the Centre for Research Collections, Edinburgh  
Library Reference: Dc.2.56

Forbes submitted a paper, later published, about the species of *Cydippe* to the Wernerian Natural History Society, which he had observed with John Goodsir. "When walking along the sandy shore of St. Andrews on Saturday, the 28<sup>th</sup> of December 1838, in company with my friend, Mr John Goodsir of Anstruther, our attention was directed to a number of small, shining jelly-like globes which were thrown up by the sea and rolled back on the receding of the waves. On gathering some we were delighted to recognise them as a species of *Beroe*, and on placing the creatures in sea-water were greatly astonished and pleased by their elegant appearance and lively motions."<sup>46</sup> As for Goodsir, he would contribute fifteen papers within six years to the Wernerian Natural History Society. His first paper bears the title, "On certain Peculiarities in the Short Sun-fish (*Orthogoriscus Mola*)" which bears interest as being one of the earliest papers Goodsir read before the Wernerian Society (12 December 1840).<sup>47</sup> However, two years later according to the *Fife Herald Newspaper* dated 6 October 1842, a large specimen of the same sun-fish was "brought up on shore by Cellardyke fishing boats, which, was purchased by Messrs. Goodsir, surgeons, here, who are preparing it scientifically for a place in their already well-stocked museum."<sup>48</sup> The six-foot-long sunfish may have been the same ocean sun-fish that Forbes



subsequently painted in watercolours in December of 1849. The painting was bought from an Edinburgh bookstall by Professor James Richie in 1909 and presented to the Natural History Collections of the University of Edinburgh.



Fig.7. Large Sunfish painted by Edward Forbes in December of 1849, Photograph Courtesy of the Natural History Collections, University of Edinburgh

Fifteen years after their first meeting, Professor Jameson's kindness to John was fully repaid, when Jameson took ill and Goodsir stepped-in to take responsibility for delivering Jameson's lecture series. John, despite the extra work entailed and indeed his own ill health, devised and presented an entirely original series of addresses rather than simply repeating Jameson's lecture notes. After giving these lectures, Goodsir was exhausted, “shrunk in features, worn in body, shattered in nerves and almost a helpless invalid.”<sup>49</sup>

Forbes and Goodsir continued to pursue their mutual interests in marine zoology with Forbes accustomed to living for many months at the Goodsir family residence at Anstruther. From there



they together dredged the adjacent Firth of Forth, interspersed by extended excursions to the Shetland and Orkney Islands.<sup>50</sup> In August 1850, after their career paths had diverged, both men took one of their last recorded excursions together exploring the Hebrides off the west coast of Scotland; the scientific findings of the three-week cruise were communicated to the Royal Society of Edinburgh by Goodsir.<sup>51</sup> Forbes and Goodsir's cruise was made possible by their host Robert MacAndrew, a Liverpool merchant, who was himself a keen naturalist and marine dredger, and supplied him the yacht, *Naiad*, a seventy-ton vessel.<sup>52</sup> Utilising the *Naiad's* dredge and towing net, the guest scientists recorded their findings including several remarkable *Ascidacea* and *Radiata* (sea squirts) that were new to science.

### **King Lion and "The Attic"**

In 1839, after Forbes and Goodsir were finished with their dredging excursion of the seas around Shetland, Forbes made the results known that summer to the meeting of the British Association for the Advancement of Science at Birmingham. An agreeable response led him to propose that a dredging committee be formed to which the Association subsequently agreed. It was at this meeting that a Red Lion Club was founded by Forbes as a protest against the "Dons and Donnishness of science," and its dull dinners the Club name was derived from the venue for its first dinner, the Red Lion Inn in Birmingham. Forbes presiding over the Club's inaugural event was accorded the title of "Lion King," and as such it fell to him provide the obligatory after-dinner drinking song to cheer the Red Lions, who one might imagine were slightly tipsy as Forbes rose to sing or loudly declaim his "Song of the Dredge."<sup>53</sup>

"Song of the Dredge  
Hurrah for the dredge, with its iron edge,  
And its mystical triangle.  
And its hided net with meshes set  
Odd fishes to entangle!  
The ship may move thro' the waves above,  
'Mid scenes exciting wonder,  
But braver sights the dredge delights

As it roves the waters under.

*Chorus:* Then a dredging we will go, wise boys! A-dredging we will go,  
A-dredging we will go, a-dredging we will go,  
A dredging we will go, wise, boys, wise boys,  
A-dredging we will go!

Down in the deep, where the mermen sleep,  
Our gallant dredge is sinking;  
Each finny shape in a precious scrape  
Will find itself in a twinkling!  
They may twirl and twist, and writhe as they wist  
And break themselves into sections,  
But up they all, at the dredgers call,  
Must come to fill collections.

The a-dredging, etc.

The creatures strange the sea that range,  
Though mighty in their stations,  
To the dredge must yield the briny field  
Of their loves and depredations.  
The crab so bold, like a knight of old,  
In scaly armour plated,  
And the slimy snail, with a shell on his tail,  
And the star-fish – radiated!

Then a-dredging, etc.”<sup>54</sup>



Fig.8. Edward Forbes, F.R.S., founder and “Lion King” of the Red Lion Club by J.H. Maguire, 1850, Photograph Courtesy of The Royal Society, Reference: RS IM/001489

Geikie, in his *Memoir of Edward Forbes*, records that “The evening of the 17<sup>th</sup> April [1845] is especially chronicled as one of the most thoroughly enjoyed in the long history of the club. They met at the ‘Cheshire Cheese’ in Fleet Street, twenty in number, including Owen, Goodsir, Falconer, Forbes, A.C. Ramsay, Captain James, Morris, Francis, Jerdan, Cook Taylor, Richard Taylor, Tulk, Henry, Henfrey, Busk, Waterhouse, Playfair, and Chambers.”<sup>55</sup>

In May of 1839, John Goodsir returned to Edinburgh from Anstruther and together with Edward Forbes rented a flat adjacent to the University at 21 Lothian Street<sup>56</sup> Incidentally; it was in this same top flat that Charles Darwin studied natural history only twelve years earlier. Forbes referred to it as “The Attic” or “Our Place at Edinburgh.”<sup>57</sup> Others shared the flat with Forbes and Goodsir including Joseph, Harry, and Robert Goodsir; George Edward Day;<sup>58</sup> John Reid;<sup>59</sup> and John Hughes Bennett.<sup>60</sup> As a typical Scottish tenement, their domicile “was approached by a public flight of stairs, to which six different families had access, and consisted of the half of a top-flat or storey, with attics, rented at seventeen [pounds] a year.”<sup>61</sup> It was here that their experiments, observations, and findings were discussed well into the evening. Dr. Henry

Lonsdale who was a classmate of the company at Lothian Street recollected “Man was not the sole occupant; other living things – biped, quadruped, manured and multiped had their share in the household. ‘Jacko’ the monkey, ‘Coco’ the tortoise, ‘Caesar’ the dog, ‘Doodle’ the cat, and occasional guinea pigs had their freedom of run in the establishment... These animals were nearly all meant for physiological observations, and occasionally furnished the anatomists with a blood-globule, a muscular fibre or a ciliated epithelium... the organisms on ceasing their physiological functions obtained the obsequies of the scalpel, the injecting syringe, the spirit jar or the macerating tub; and as mementoes of once-familiar faces, skins, and crania for conservation might be seen hanging like banners on the outward wall or attics roof.”<sup>62</sup> It was the venue for many evenings of much hilarity within its walls, as Forbes and the Goodsirs’ along with their friends mimicked medical school teachers such as *Monro tertius*, who would “read his grandfather’s essays on *Hydrocephalus* as part of an anatomical course and where John Reid, in rubicund glow and fun, chaffed Harry Goodsir for assuming to have made the discovery of a separate sexual system in the barnacle, when both the male and female animals knew the fact and had enjoyed the loves pertaining to the fact, thousands of years ago!”<sup>63</sup> No. 21 Lothian Street will forever be associated with these young men of science and of their memorable times together as brothers in the pursuit of truth in their respective careers.

The shared interests of Forbes and Goodsir's student years diverged more and more as each specialised in their respective fields of scientific research. Human anatomy, pathology, and morphology occupied Goodsir while Forbes concerned himself with natural history and even overseas travels, far beyond student excursions around Edinburgh. Despite their careers taking them in different directions, their friendship firmly endured. When in 1841, Forbes published his *History of British star-fishes*, his love of fun was strikingly seen in a letter to Goodsir with a portrait of a pretty girl as a vignette in which Forbes remarked – “That’s rather a novelty, isn’t it, Goodsir?”<sup>64</sup> With the Chair of Botany opening up upon the death of Professor David Don at Kings College London, it was his old friend, John Goodsir who assisted him in securing the Professorship.<sup>65</sup> Forbes makes mention of John and his brother, Harry, in his correspondence of this time. In a letter to Captain Thomas Graves<sup>66</sup> on 1 January 1843 he reports “The Goodsirs are making splendid dissections of the animals” he brought back from his Mediterranean trip.<sup>67</sup> Whilst in a communication to William Thompson dated 2 February 1844 Forbes states “In the

meantime, shoals of letters, requests, queries, etc., lie unanswered; some of them requesting immediate replies. I am quite as bad as Goodsir, so feel your abuse of him as affecting myself.”<sup>68</sup> It appears letters and requests even those from Forbes, were seldom considered important enough to interrupt the single-minded Goodsir. Focused on pursuing the aim and passion of his life, anything that distracted him in everyday dealings agitated him greatly, “Everything connected with my studies goes on to my heart’s desire, but my *bump of order* is confused when I have to settle anything connected with money matters, letters to be written, calls, etc.”<sup>69</sup>

Of John Goodsir’s scientific circle, Edward Forbes and Robert Nasmyth generously befriended John’s younger brother, Harry. Edward Forbes, as a fellow naturalist, was pleased to accompany Harry Goodsir on one of his earliest recorded collecting expeditions in January of 1839. Their discovery on the shoreline at St. Andrews of two species of *Beroe* was formally presented to the meeting of the St. Andrews Literary and Philosophical Society on 4 February 1839.<sup>70</sup> Six years later, having heard of Harry Goodsir’s desire to join an Arctic expedition, Forbes wrote to him on 24 January 1845 with the current status of such an expedition, “I have put off writing from day to day in the hopes of getting definite information about the Northern Expedition, which, after all, will not I fear come off for some time...”<sup>71</sup> The following an announcement the expedition was definitely going forward, Forbes wrote to Harry on 24 February 1845, “Dear Harry, I have had Sir John Franklin spoken to. I am advised to be easy. If you go, it must be as Assistant Surgeon so be prepared...”<sup>72</sup> Having been enrolled as an Assistant Surgeon and Naturalist on Franklin’s expedition, Harry would often visit Forbes, now Professor of Botany at King’s College, while he prepared for his Arctic voyage. On 3 April 1845, Harry wrote his brother, John “I went to the Linnaean Club dinner and afterward to the Society... I go with Forbes on Sunday morning to [Hugh] Cuming<sup>73</sup> the conchologist who is to give me all the information he can.”<sup>74</sup> Harry subsequently informs John on 11 April 1845 that “You can let Forbes know that the probable is up [to] the west coast of Greenland and then into Lancaster’s Sound...”<sup>75</sup> In an interesting letter written by Charles Darwin to Joseph Dalton Hooker<sup>76</sup> dated 16 April 1845, Darwin mentions Harry Goodsir and Edward Forbes writing “Goodsir, I have been very glad to hear, is going on the Arctic Expedition, as Naturalist. At Forbes request, I have sent him some suggestions (so will not trouble your friend) on icebergs, boulders, etc.”<sup>77</sup>



The evening before the Franklin expedition weighed anchor, Forbes sketched Harry Goodsir's profile as reminder of their friendship. The subject's steady gaze in this informal sketch, made on 18th May 1845, reflects Harry's inner strength for what lies ahead and optimism in its outcome. It is a remarkable piece of history concerning the Franklin expedition. Years later, Forbes fully appreciating the significance of this sketch, in the light of Harry's demise with the rest of Franklin's expedition, gave the original drawing to Harry's sister, Jane. She in turn gave it to Dr. David Crichton, Harry's old schoolmaster, along with one of John Goodsir, formerly a star pupil of Crichton.<sup>78</sup> Miss Jane Goodsir later wrote, "Henry's likeness is from a drawing by Professor Edward Forbes, taken on the night before the Franklin expedition sailed in 1845. The names of these three men, [John and Harry Goodsir, and Edward Forbes] so attached to each other, and such earnest fellow-workers in science, will always be remembered together."<sup>79</sup> The original sketch has never been found.



Fig.9. Sketch of Dr. Harry D.S. Goodsir by Edward Forbes on the eve before he sailed on the H.M.S. *Erebus*, Photograph Courtesy of the University of St. Andrews University Special

Collections ID: GPS-Goodsir-H-1

Decades later, a few carte de visite's were made of the drawing by the photographic artist, Edwin Debenham in 1883-84 at his studio located at 79 Princes Street in Edinburgh. The only known original carte de visite of this drawing resides in the Natural History Museum (London) Library and Archives.<sup>80</sup> The Photographic Collections, Special Collections Division of the University of St. Andrews holds a 35 mm negative showing part of the Debenham logo, and from this, they printed a 6 x 4 print of the drawing which is shown above.

Even Sir John Franklin, in one of his last correspondences written on 9 July 1845 refers to his Naturalist and Assistant Surgeon, Harry Goodsir as well as Forbes writing to Robert Brown<sup>81</sup> “You will be glad to hear that Goodsir has collected very assiduously on the waters and from depths and that he has procured many things which are rare and some of them unknown. I must not, however, attempt to give you their unwriteable [sic] names, but trust to your learning what they are from Professor Forbes or some other of his correspondents.”<sup>82</sup>

Harry Goodsir's professional abilities were recollected many years later by his former field excursion companion, Forbes, in his unfinished manuscript entitled *The Natural History of the European Seas* that was posthumously completed by Robert Godwin-Austen.<sup>83</sup> In this work, Forbes recorded a heartfelt assessment of his fellow naturalist, “My very dear friend, Mr. Harry Goodsir, sailed in H.M.S. *Erebus* as assistant-surgeon and naturalist. No more able or better qualified person could have been chosen for the scientific duties to which attention was directed. He had already, though very young, gained a high reputation for his researches among marine animals, and had especially investigated the more critical and unpreservable tribes. He entered upon the dreary and dangerous voyage filled with scientific zeal and determined, among other inquiries, to prosecute a series of dredging observations, and to keep full records of the results.”<sup>84</sup>

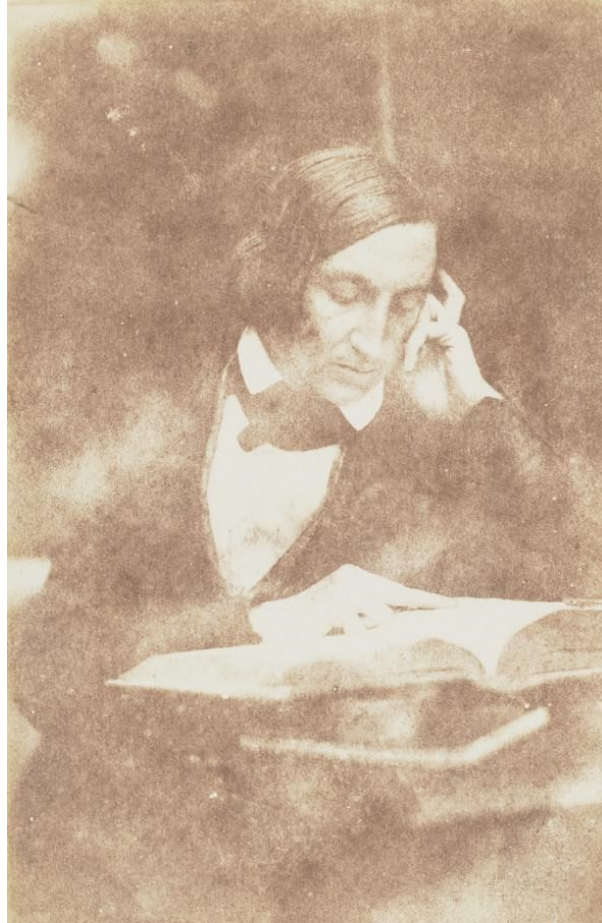


Fig.10. Hill/Adamson calotype of Professor Edward Forbes of Kings College London, taken in circa 1843-47, Photograph Courtesy of National Galleries Scotland, Accession number: PGP

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Almost one-hundred and seventy years after Harry Goodsir perished near the Peffer River at the southern part of the desolate island known as King William Island, a commemorative plaque was placed by Tom Gross and his 2018 expedition members in tribute to the young Assistant Surgeon of the *Erebus* near the spot where he perished after his long and perilous death march. In his diary entry for that day, Tom Gross, one of the last great explorers of the last century wrote, “It was August 4<sup>th</sup> when we laid the plaque... The wind died down and it was very calm, the ocean was like a mirror, silver in color. It felt serene and peaceful unlike the desolate place that it was. Everyone was quiet as we prepared the stone that we had carefully selected to fasten the plaque. My daughter, Pamela did the honors of reading the letter prepared by Michael Tracy and Kevin Cronin added some words in Gaelic to end the ceremony. It is hard not to stand there and think



of the suffering these men endured. Suffering as no one can even imagine to the point of insanity where death became welcome.” Placed near the commemorative plaque was a copy of Edward Forbes’ drawing of his friend, Dr. Harry Goodsir.



Fig.11. Commemorative plaque of Dr. Harry D.S. Goodsir placed near the spot where he perished on King William Island, 4 August 2018, Photograph Courtesy of Tom Gross

Meanwhile, John Goodsir had viewed, ever since 1842; the Edinburgh Chair of Anatomy as his ultimate career goal, but it was still occupied by Alexander Monro *tertius*.<sup>85</sup> As anatomical demonstrator his chances for the position were greatly enhanced. When Monro *tertius* finally announced his retirement in early 1846, Goodsir immediately applied for the Chair. When Forbes learned of this development, he wrote to his old friend, George Wilson on 8 January 1846 “I am very anxious, both for him and for the University... James D. Forbes<sup>86</sup> and he [Goodsir] are regarded as the brightest stars, and the farthest in advance of their time. The brilliancy and beauty and philosophical spirit of Goodsir’s essays are unequalled in these times, and all men able to judge here and abroad look upon him as a redeeming light in Edinburgh.”<sup>87</sup> In one of Forbes's most revealing letters one glimpses how delighted he was to be writing a testimonial in

support of John's application for the Chair of Anatomy dated February 1846, "Dear Goodsir, I rejoice to hear that you are about to become a Candidate for the Professorship of Anatomy in the celebrated University in which we studied together... Knowing, as I do, your indefatigable energy and perseverance – having had the pleasure and benefit of your friendship, since the day when, *your junior*, I commenced my scientific studies in Edinburgh – I feel sure, that great as have already been your performances, they are but the earnest of a long train of researches and discoveries to come... Having the pleasure of hearing you lecture at the College of Surgeons, in 1842, I can testify to your powers as a clear, able, and earnest lecturer – one sure to command the attention and confidence of students, and especially equal to the difficult task of the perspicuous exposition of the deeper and more intricate parts of your science. In the management of that great engine of Anatomical instruction, the Museum, all who have witnessed your preparations and arrangements, know you are unrivalled. Under your charge, the University collection in Edinburgh would soon become one of the most famous in Europe. Feeling that such merits should command success, I wish you that which you deserve, and remain, Dear Goodsir, Ever your attached friend and admirer, Edward Forbes."<sup>88</sup> Goodsir was formally appointed to the Chair as Professor of Anatomy to the University by the Senate on 2 May 1846<sup>89</sup> and thereby realised the peak of his professional ambitions.

John's new professorial standing was crowned with public recognition on 11 June 1846 by his election as a Fellow of the prestigious Royal Society, the oldest national scientific institution in the world; John's proposers were Edward Forbes and Richard Owen.<sup>90</sup> Goodsir, as both Professor of Anatomy and Fellow of the Royal Society, had finally achieved at the age of thirty-two the twin goals of his early years. In so doing, he laid the firm foundations of a domestic academic reputation that in turn would provide credibility for his presentation of "*Cell Theory*" to a wider and truly international readership.

### **The Likenesses and Images of John Goodsir**

Henry Lonsdale in *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor In The University Of Edinburgh* gives the reader the first earliest physical appearance of John Goodsir when he was twenty-six years of age writing, "He was now [1840] in the strength of his



adolescence, and presented a tall, gaunt frame, whose height (75 inches) (sic) towered above all his friends. There was a grave if not sombre tone in his looks, increased by his brown hair combed downwards over his capacious forehead, his stooping shoulders, and downcast visage. His face however viewed, was striking from its size; his prominent nose, deep and thoughtful eyes, large mouth, and chin, and general expression, showed power, calmness, and perseverance.”<sup>91</sup> As to an artistic likeness of the Professor, this is to be found as a sketch inserted into a book. In 1884, Dr. Robert Anstruther Goodsir published a short account of the Hunter<sup>92</sup> chair which had been a prized possession of John; the corrected and annotated copy of *Only an Old Chair: its story as taken down in choice shorthand and done into English* is housed in the Royal College of Surgeons of Edinburgh’s library and archives. In this corrected and annotated book is a likeness of John Goodsir drawn by Edward Forbes himself, although the exact date it was drawn is unknown. Corroborating evidence is supplied by the actual letter that Sir Richard Owen<sup>93</sup> wrote to Robert Goodsir that was also pasted into the book, dated 19 April 1884 in which Owen wrote, “For the Portraits of the latter, at two periods, I return your sincere thanks. Dear Forbes’ sketch recalls him vividly to my memory.”

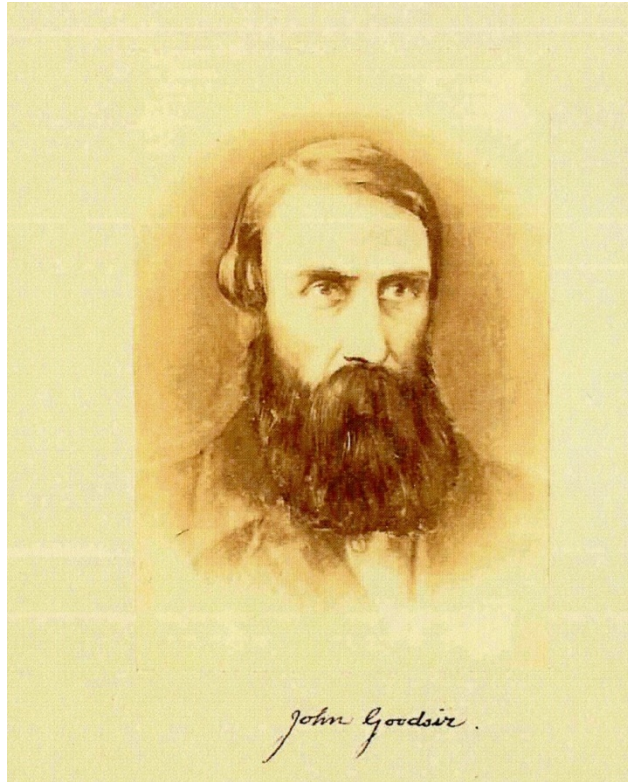


Fig.12. Drawing of John Goodsir by Edward Forbes taken from the corrected and the annotated book entitled *Only an Old Chair: its story as taken down in choice shorthand and done into English* by Dr. Robert Anstruther Goodsir (1884), Photograph Courtesy of the Royal College of Surgeons of Edinburgh

While the actual original drawing has never been found, this image measures 9 cm (height) by 6 cm (width) and is pasted into a blank page in the book. It does not appear to be an original photograph of Goodsir – more of a glossy reproduction of a drawing/sketch of him. Since this early drawing by Edward Forbes may have been the early prototype for other subsequent likenesses and engravings of John Goodsir, its significance cannot be understated and stands as a fitting artistic tribute to this Honorary Academician of the Royal Scottish Academy.

In the upper rotunda above the entrance to Royal College of Surgeons of Edinburgh's Playfair Hall (1832) there hangs an oil portrait of the esteemed Professor of Anatomy, John Goodsir; to view the portrait one must look up. The portrait is in an oval frame and its artist and date of completion are unknown and measures 70 cm (height) by 60 cm (width). It was donated to the Royal College of Surgeons of Edinburgh (RCSEd) by Sir William Turner when he demitted the office of President in 1883. It seems probable this portrait is derived from Edward Forbes's sketch as the mien of both are similar. As to whom commissioned the portrait is open to speculation, but is likely to have been either a member of the Goodsir family or Turner himself.



Fig13. Oil Canvass Portrait of John Goodsir, date and artist unknown, Photograph Courtesy of Louise Wilkie, Curator, Royal College of Surgeons of Edinburgh, Reference: E.D. C5.2010.97

The University of Edinburgh has an extensive art collection spanning over two millennia with over eight thousand artworks. In its collection is a bust portrait of John Goodsir whose artist and date of completion is unknown. The portrait is an oil paint canvas with the same likeness of Goodsir as in the Royal College of Surgeons of Edinburgh's portrait. The donor of the University's portrait is also not known. However, on the reverse of the portrait is the framer's information which reads "John D. Smith, Carver, Gilder and Artists Colorman? 33 West Register Street, Edinburgh." Mr. Robin Rodger of the Royal Scottish Academy commented that, "Although this information does not help with the identity of the artist, it does confirm that the canvas of the portrait of Professor Goodsir carries the business address occupied by John Douglas Smith, carver and gilder between 1840 and 1867. This at least confirms that the work is contemporary with the Professor and therefore a 'lifetime likeness.'" Mr. Rodger is of the further opinion that since this portrait is almost identical in size and appearance to the version in the Royal College of Surgeons of Edinburgh's collections that the two portraits are indeed traditional oil paintings on canvas, or that they might be some form of photographic image, pasted to the canvas and then overpainted in oils to give the impression of their being full oil portraits. It is further interesting to note that John D. Smith's nephew and business partner, John Stewart Smith was a member and future President of the Edinburgh Photographic Society. The portrait frame measures 94 cm (width) by 100 cm (height), however it is not an oval portrait – the frame gives the illusion of an oval but the canvas is square. The measurement of the oval is 62.5 cm (width) by 75 cm (height) and the canvas measures 73.5 cm (width) by 86.5 cm (height). While the dimensions of the two, head and shoulder portraits of Professor John Goodsir facing right, held by the RCSEd and Edinburgh University are apparently different, the Edinburgh University portrait being the slightly larger version, this may merely reflect a difference in measurement conventions of the respective institutions' curators over past decades.



Fig.14. Oil Canvas Portrait of John Goodsir, date and artist unknown, Photograph Courtesy of the University of Edinburgh Art Collections, Reference: EU 0941

Incidentally, in books dating from the 1840s onwards it was not uncommon to have photographs pasted as additional illustrations. Examples of this practise are to be found in books by the pioneer photographer, Henry Fox Talbot.<sup>94</sup> The second image of John Goodsir that was pasted into the corrected and annotated copy of Dr. Robert Goodsir's *Only an Old Chair* measures 98 mm (width) by 138 mm (height) and is described as being smoother than the pages in the book and raised by not glossy. This might be an original photograph but whether it is the "primus" copy is unclear and it is obvious that it was "tipped in."





Fig.15. Photograph of John Goodsir, no date, taken from the corrected and annotated book entitled *Only an Old Chair: its story as taken down in choice shorthand and done into English* by Dr. Robert Anstruther Goodsir (1884), Photograph Courtesy of the Royal College of Surgeons of Edinburgh

In *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In the University Of Edinburgh*, there is an exact portrait engraving of Professor John Goodsir on page ix of the Preface where one reads “The portrait is engraved from a photograph of the Professor when he was forty years of age [1854].” In the personal diaries of the Reverend Joseph Taylor Goodsir, there is also mention of the portrait engraving “The Black [publishers] are to prefix a likeness of John to the Volume.”<sup>95</sup>



Fig.16. The Portrait Engraving of Professor John Goodsir as pictured in *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh*,  
Page IX

This portrait engraving is likely to be a re-photographed copy, using the post-1851 wet plate albumen process, of an original earlier Calotype or Daguerreotype, made in 1847. The portrait engraving has been used in many subsequent publications over the years with different variations of colour schemes. Sir Byrom Bramwell,<sup>96</sup> who, as a first-year medical student had witnessed Goodsir's "lighting attacks of pain," realised years later that his late professor's episodes were diagnostic *tabes dorsalis* which is a slow degeneration of nerve cells and nerve fibres that carry sensory information to the brain. Although medical science was unaware of the causal link during Goodsir's lifetime, this condition was discovered to be a complication associated with late-stage syphilis and when left untreated, as in Goodsir's case, the bacteria damages the spinal cord and peripheral nervous tissue. Sir Byrom Bramwell, in his publication "The Edinburgh Medical School and its professors in my student days 1865-69" describes Goodsir as a tall, gaunt, emaciated man in a black skull-cap," which seems to fit this portrait engraving.<sup>97</sup>

There now seems to be a discrepancy concerning the date of a copy of what is described as a wet plate photograph taken in 1847 now in the RCSEd collections; it measures 98 mm (width) by 138 mm (height). It was in the possession of Dr. William Guy<sup>98</sup> and later subsequently donated by Dr. John Menzies Campbell.<sup>99</sup>



Fig.17. Copy of a wet plate photograph of Professor John Goodsir taken in 1847, Photograph Courtesy of the Royal College of Surgeons of Edinburgh, Reference: HC.AG.3.1.

The wet plate process was not invented until the early 1850s and reigned supreme until the 1870s. The term “wet plate” is most often referred to as the “negative” being the original captured by the photographer. The prints made from a “wet plate negative” were almost always albumen prints – often yellow/brown/sepia in and pasted into books. Consequently if any earlier



photograph was taken as in this case, it would have been a calotype or daguerreotype, which could also have been the source basis for a later etching.

During July and August of 1850, the Professor of Zoology at Leiden University, Johannes (Jan) van der Hoeven (1801-1868), travelled to Edinburgh with his son, Jan, and met with Professor Goodsir. It was during this visit that the either John or the Dutch professor commissioned a rare carte de visite as a souvenir of their meeting. Consequently, when asked for a carte de visite fourteen years later by the Royal Medical Society, Goodsir forgot that he gave the only copy to his friend, Johannes van der Hoeven.<sup>100</sup> As Professor Goodsir lived on George Square, he sought out a local photographer for the portrait commission. This is confirmed by the information contained on the carte de visite which is stamped “P. Thomson” in the lower-left hand corner while the signature of John Goodsir appears to the right. The carte de visite's reverse side is stamped “Photographed by P. Thomson, 90 South Bridge Street, Edinburgh,” a photographer whose business flourished at this address until 1901.<sup>101</sup>

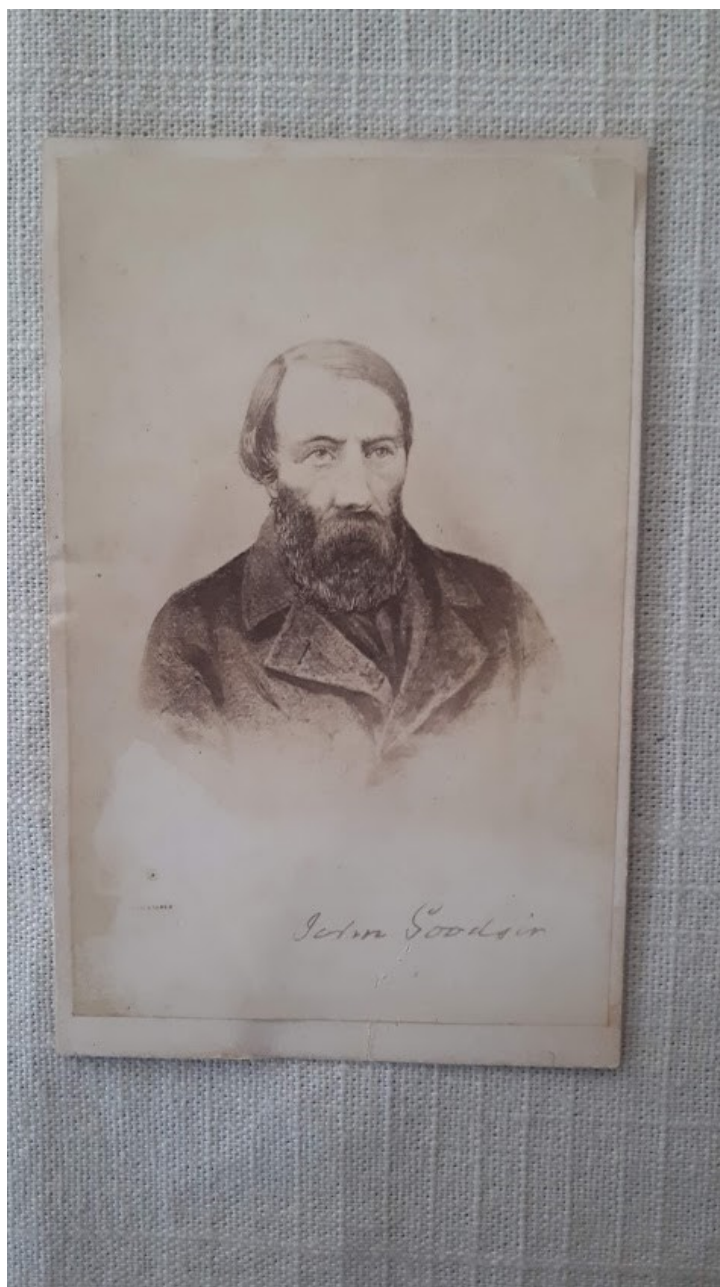


Fig.18. Carte de Visite of Professor John Goodsir, August 1850, Photograph Courtesy of Mrs. Charlotte van Vrede-van der Hoeven

A further, but undated, likeness of John Goodsir attributed to Peter Thomson, who applied on 30 March 1867 for a 'likeness drawing' copyright, is housed in the National Archives, Kew.<sup>102</sup> The description of this likeness drawing is “3/4 face sitting at table, legs crossed, hands folded, hat and book on table, glove on hat” and is a familiar image.



Fig.19. Likeness Drawing of Professor John Goodsir of Edinburgh, date unknown, Photograph  
Courtesy of the National Archives, Kew, Reference: COPY 1/13/180

A recent donation to the RCSEd collections is an exceptionally rare black and white photograph drawing of Professor John Goodsir mounted on a board. It was donated on 10 February 2020; this author's last surviving cousin, on the Goodsir maternal side of the family, Mr. John Courtland Mackid. It had presumably been given to his great-grandfather, Dr. Harry Goodsir Mackid of Calgary, Alberta, Canada by a member of the Goodsir family (John Goodsir Portrait Drawing, Royal College of Surgeons of Edinburgh Reference: GD 200/28). Although its date cannot be determined, the Royal Scottish Academy has stated, "This is a photograph of an oil painting on canvass, the weave of which is discernible in the lower half, particularly at the lower left. It has a very naïve feel to it and is the work of someone who was versed in the rudiments of painting but would not be regarded as a professional artist."

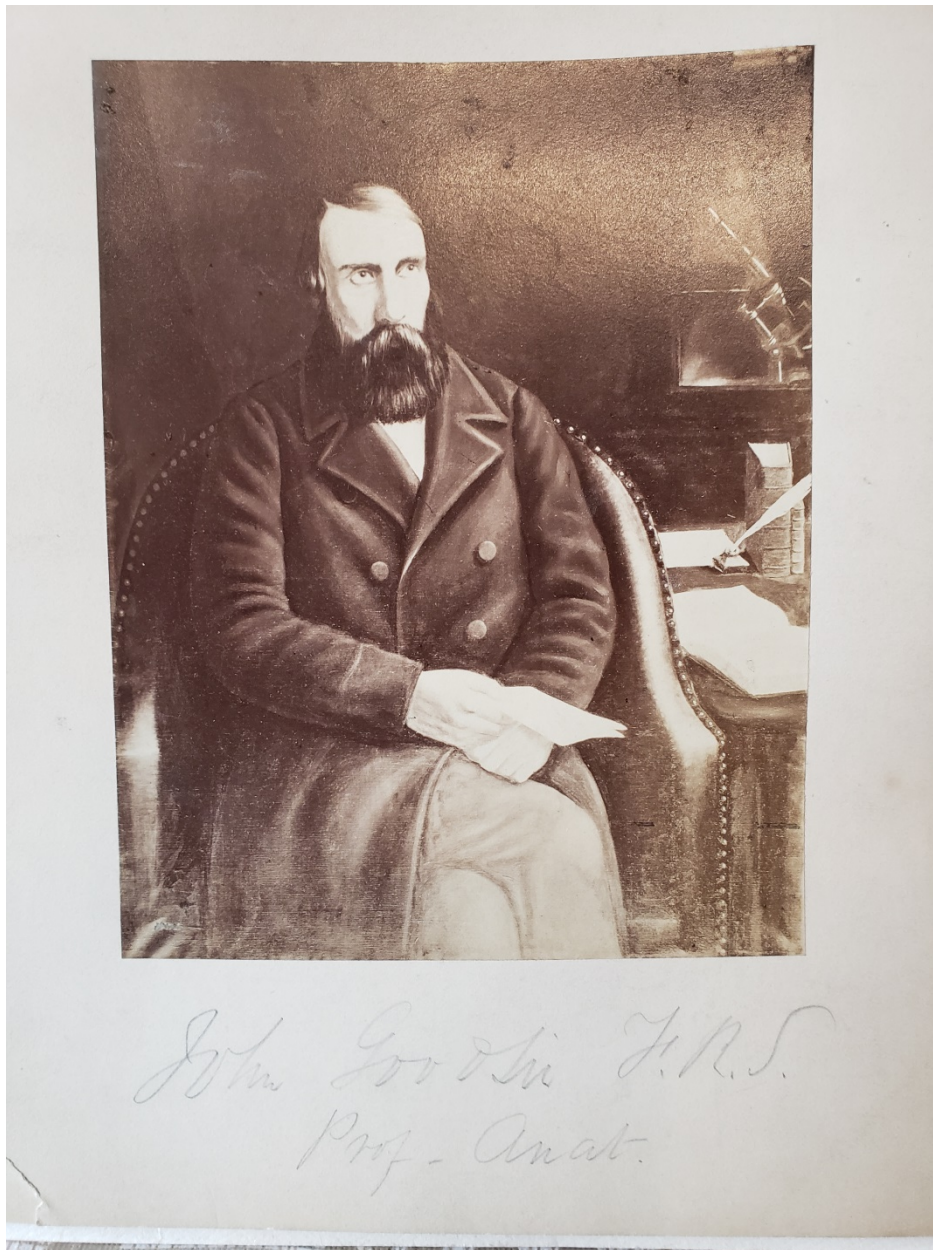


Fig.20. John Goodsir Portrait Drawing, date unknown, Photograph Courtesy of the Royal College of Surgeons of Edinburgh, Reference: GD 200/28



John Goodsir's deteriorated physical state of his later years is recounted by Dr. Henry Lonsdale who noted he was “shrunk in features, worn in body, shattered in nerves and almost a helpless invalid.”<sup>103</sup> John Cleland<sup>104</sup> was a demonstrator for Goodsir from 1857-61 and many years later produced from memory a portrait of his distinguished Professor. Published in *Memoirs and Memoranda in Anatomy, Volume I* (1889) Cleland describes the portrait writing, “In offering to Anatomists a portrait of John Goodsir, I need make no apology if, as I am fully supported in believing, I have fairly succeeded in reproducing the expression and form of his features... and as far as I could, I have endeavoured to recall him as he was before his illness, the robust surgeon and naturalist, as well as the philosopher who pointed out the agency of the nucleated corpuscle in both secretion and absorption... it was only for a few years before his death that he took to wearing beard and moustache, which hid the highly characteristic mouth.”<sup>105</sup>

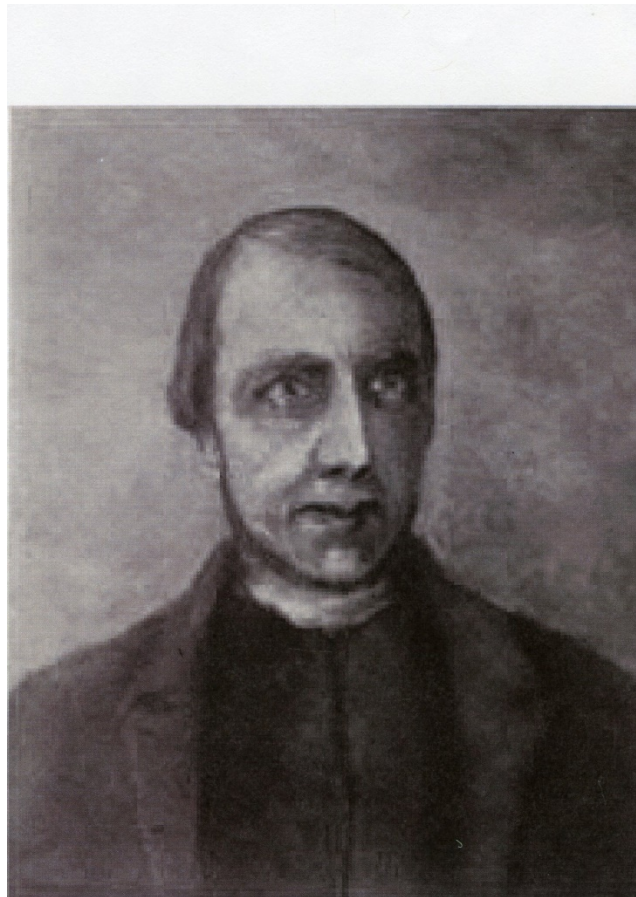


Fig.21. Portrait drawing of Professor John Goodsir by John Cleland taken from *Memoirs and Memoranda in Anatomy, Volume I* (1889)

Cleland also offers a unique insight into the dress of Professor Goodsir writing, “He wore his waistcoat buttoned to the top, and lectured in a dress coat as is now only worn in the evening, and for an introductory lecture used to appear with a white neckcloth on, without any fastening in front. It is such dress that I have represented him.”<sup>106</sup> John’s brother, the Reverend Joseph Taylor Goodsir wrote in his diary four months after his death, “I took out his clothes, books, etc., the clothes mildewed from being locked up since 1852. It was sad work.”<sup>107</sup>

In 1884, the artist William Brassey Hole, R.S.A.,<sup>108</sup> produced an etching of the portrait heads of fourteen deceased professors of Edinburgh University and entitled the work “Umbræ Quaedam” (Some Shades) which depicted Forbes and Goodsir whose portrait heads are located in the upper right of the etching. Hole was an Edinburgh-based artist who specialised in history painting and etching.

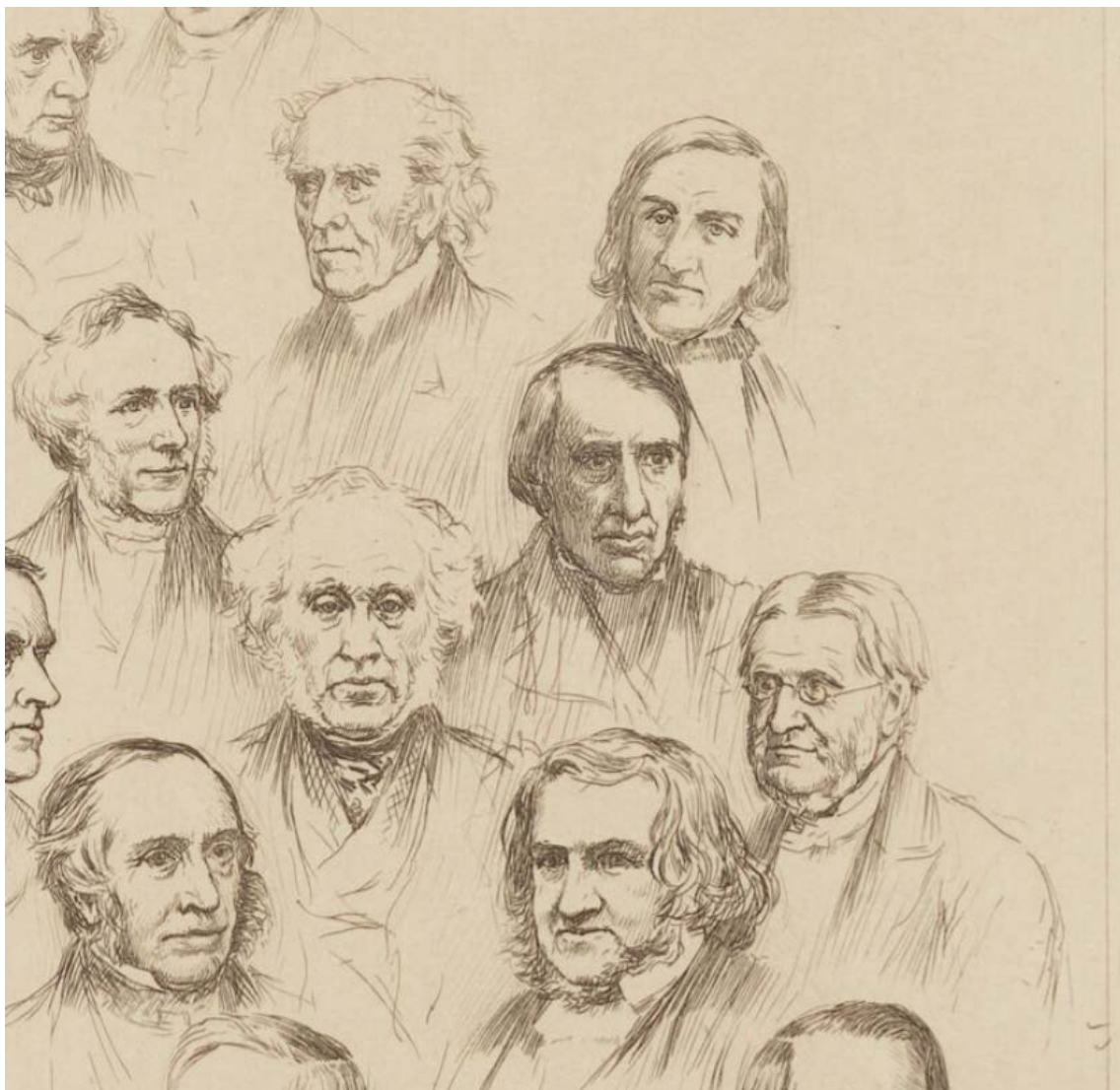


Fig.22. Etching of William Brassey Hole entitled “Umbrae Quaedam” (1884) showing Forbes and Goodsir, Photograph Courtesy of the Scottish National Portrait Gallery, Accession Number:

PG 3447

In a fitting testament to Professor John Goodsir, William Drummond Young, R.S.A.,<sup>109</sup> painted in 1889 a portrait, oil on canvas, showing the Professor holding a dental probe to the teeth of a skull, as a reminder of his first medical treatise on the pulp sack in teeth. This painting is hanging in pride of place at the entrance to the Anatomical Museum in what used to be the original (1884) ground floor of the Museum, now known as the “elephant foyer” where two giant elephant skeletons are situated. The painting hangs above a case containing a Book of Remembrance which records the names of those people who have donated their bodies to medical science. The Anatomical Museum building today is where the Anatomy Department and Biomedical Teaching Organisation is located, known as the Old Medical School, Teviot Place, where Edinburgh’s Old and New Towns meet. On 16 February 1889, the Royal Scottish Academy opened its doors to the public for its sixty-third exhibition, and according to the *Greenock Telegraph Newspaper* “Other portraits in which considerable interest will be taken are those of the late Professor Goodsir, F.R.S., by Mr. W.D. Young...”<sup>110</sup> The chair to the left of Goodsir is in all probability the Hunter chair, once a cherished possession of the Professor and now a valued artefact belonging to the Royal College of Surgeons of Edinburgh’s collections.



Fig.23. Portrait of Professor John Goodsir by William Drummond Young, R.S.A. (1889),  
Photograph Courtesy of the University of Edinburgh Art Collections, Reference: EU 0455

In the corrected and annotated copy of *Only an Old Chair* there is an incorrectly identified photograph of John Goodsir. A similar error is found in Dugald Gardener's "John Goodsir F.R.S. (1814-1867): Pioneer of cytology and microbiology" (2015) where the confusion is clearly attributable to the Victorian fashion for very large beards. Later identifiable images of Goodsir include a portrait sketch produced by Dr. John Smith in 1908 for Professor Lang, a mathematician and Regius Professor at the University of St. Andrews.





Fig.24. Portrait sketch of John Goodsir by Dr. John Smith, 1908, Photograph Courtesy of the University of St. Andrews Special Collections ID: HC 179

The posthumous commission of a marble bust was undertaken by William Brodie, R.S.A.,<sup>111</sup> which he exhibited at The Royal Scottish Academy's Annual Exhibition of 1868.<sup>112</sup> After the exhibition's opening, the *Edinburgh Evening Courant Newspaper* wrote “There are many excellent busts, and graceful groups and single figures, among the sculptures, to some of which we may now direct attention... [Mr Brodie’s] praise may also be given to his busts of Professor Goodsir...”<sup>113</sup> The Reverend Joseph Taylor Goodsir mentions this bust in his diary entry for 16 May 1868, “To Brodie’s and explained him about the bust; agreed to try what we would to get it finished.”<sup>114</sup> The bust is mentioned again by the *Dundee Courier Newspaper* two years later “In

the sculptural department of the Royal Academy... Mr Brodie again asserted [his] position... with a marble bust of Professor Goodsir of Edinburgh.”<sup>115</sup> Brodie depicted Goodsir with long straight hair, sporting a full beard and moustache, and wearing a garment that looks like a cloak with a wide fur collar. On 1 September 1870, the *Glasgow Herald Newspaper* reported that “Mr. Brodie as also in his studio two marble busts which have been subscribed for by friends and admirers of the late Professors Goodsir and [John] Lee.”<sup>116</sup> The bust currently resides in the Anatomical Museum.

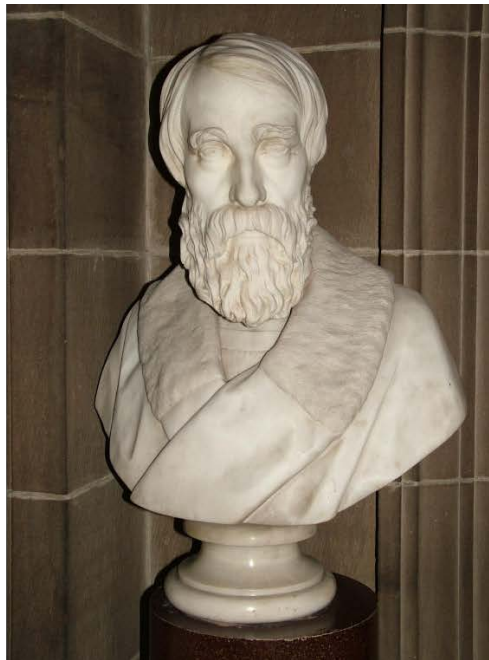


Fig.25. Marble Bust of Professor John Goodsir created by William Brodie, R.S.A. (1867),  
Photograph Courtesy of the University of Edinburgh, Reference EU 0479

A pupil of Brodie's, was David Watson Stevenson, R.S.A.<sup>117</sup> who most notably sculpted the statue of William Wallace circa 1886 for the Wallace Monument in Stirling. Stevenson sculpted a bust of John Goodsir although the completion date cannot be determined; it was most probably commissioned by the Goodsir family as a domestic commemoration. There is an inscription on the back at the shoulders which reads “1814 John Goodsir 1867/Anatomist” and below the shoulders reads “Presented /By/ His Brother/ Robert Anstruther Goodsir /M.D/ 1895” The physical description is “Bust with head turned two-thirds profile to sitter's left, ear length slightly wavy hair parted on right, long full beard and moustache covers collar to collarbone length. Eyes with deeply incised rises and drilled pupils, weary but dreamy expression. Bushy

eyebrows. Costume: high-collared shirt with bowtie mostly obscured by beard, thin section of waistcoat, and wide lapelled coat buttoned at right breast, academic gown hangs open from shoulders.”<sup>118</sup>

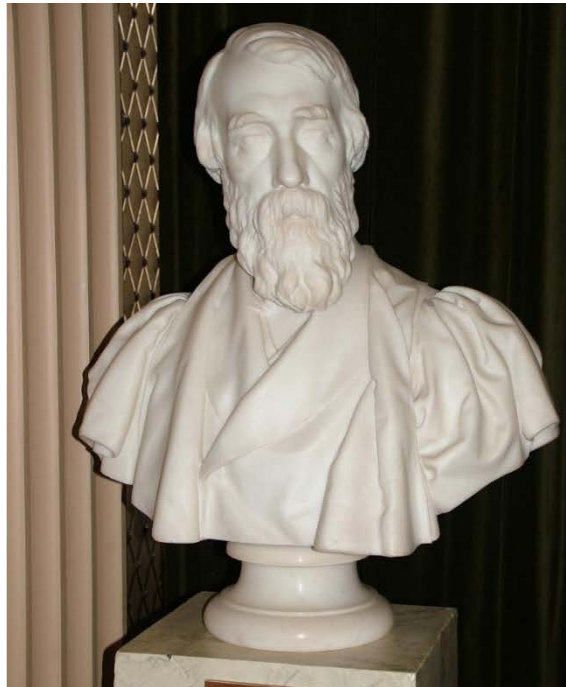


Fig.26. Marble Bust of Professor John Goodsir created by David Watson Stevenson, R.S.A., date unknown, Photograph Courtesy of the University of Edinburgh, Reference: EU 0350

Upon the death of Dr. Robert Anstruther Goodsir, this marble bust of his late brother was bequeathed to the University of Edinburgh together with his wish for it to be displayed in the “Upper Library Hall,” now known as the Playfair Library.<sup>119</sup> The Senate then passed this recommendation to the University Court which according to the Senate Minutes of 30 November 1895 accepted this recommendation and there it resides today.<sup>120</sup>

### **Ultimate Career Goal Achieved**

With Professor Jameson's retirement from the Chair of Natural History at the University of Edinburgh, the opportunity arose for Forbes to achieve his ultimate career goal for which he had worked so hard. Having been successfully appointed, his old friends from his youthful days encircled him once again to hear his inaugural lecture on 15 May 1854. Forbes did not

disappoint them. His lecture reflected both a sense of responsibility and a quiet resolve to be worthy of his predecessors: “It is a common and not unreasonable practice with teachers of all sciences to magnify that which is especially their favourite. Here, in this University, where the science that I am to have the great honour of professing has been so long held in esteem in all its varied ramifications, and so long taught within these walls by one of the most eminent of modern naturalists, I feel that the lauding of it is unnecessary... I have a difficult task before me gentlemen, with those traditions of greatness to over-shadow my endeavours. But since this most honourable and responsible office has been placed in my charge – the highest to which a British naturalist can aspire – with God’s blessing and your assisting exertions I will endeavour fully and fairly to do my duty.”<sup>121</sup>



Fig.27. Edward Forbes in the zenith of his career, Photograph Courtesy of the Wellcome Collection, Reference: 127331

In July of 1854, Forbes, and his wife and family purchased South Cottage at Wardie, healthfully located on the shore of the Firth of Forth, about two miles from Edinburgh's city centre.<sup>122</sup> However, in a letter dated 1 September 1854, Forbes complains, "After trying to work in the heat and poison of London, I succumbed, and on Sunday last was seized with diarrhoea and vomiting..."<sup>123</sup> Worse was to follow when Forbes spent three days at Jardine Hall, rural mansion in Annandale, Dumfriesshire. Whilst engaged on a geological excursion in the neighbourhood, he suffered hours of exposure to drenching rain which chilled him thoroughly. This was followed by a severe pain in the lumbar region, of which he continued to complain until his last illness.<sup>124</sup> Geikie, in his biography of Forbes, describes the illness as "manifest weakness and while he lectured to his class at the University of Edinburgh, his hand was observed to tremble as he raised it from the desk on which it often rested during the delivery of his introductory lecture."<sup>125</sup> "He complained," said Dr. John Hughes Bennett, "of chills and feverishness indicating as he insisted, a return of his old enemy, the remittent fever [malaria] he had caught in Greece, and for which he took quinine."<sup>126</sup>

### **Edward Forbes, H.R.S.A.**

The Royal Scottish Academy (R.S.A.) has a proud history dating back to 1826 when it was originally known as The Scottish Academy. Since its inception, it has elected Honorary Members who were "eminent in their field." Gaining a Royal Charter in 1838, the Academy rapidly grew in significance and status throughout the nineteenth century by providing training for young aspiring artists as well as maintaining a collection of inspirational works of art. The Academy, at the Annual General Meeting on 8 November 1854, elected Professor Edward Forbes as an Honorary Member as successor to Professor John Wilson,<sup>127</sup> Chair of Ancient Literature.<sup>128</sup> The Academy conferred this honour on Professor Forbes on account of his scientific eminence, and also in recognition of his artistic studies and pursuits.<sup>129</sup> Sadly, Forbes was only destined to enjoy this honorary status for a very limited moment. Despite his continuing pain and feverish state he continued to exert himself to lecture where he was observed by his students to mix up a white powder (quinine) in water and drink it off with a trembling hand.<sup>130</sup> Despite his best efforts, his illness worsened with each passing day.



### **Death of Edward Forbes – “He has been snatched from us”**

On 14 November 1854, Forbes' condition became critical, and it was John Hughes Bennett who was summoned to Wardie along with his old friend, Professor John Goodsir who arrived later in the day to confer on his condition.<sup>131</sup> Forbes clung to life for four days but finally succumbed on 18 November 1854 at the tragically young age of thirty-nine.<sup>132</sup> The cause of his death was listed simply as “inflammation.” John Goodsir made the death mask of his dear friend that would later be used as a model by Sir John Steell, R.S.A.,<sup>133</sup> who sculpted the bust of Edward Forbes for the University of Edinburgh.<sup>134</sup> While this bust now resides in the Playfair Library in the Old College of the University, the actual death mask is now lost.



Fig.28. White Marble Bust of Edward Forbes by Sir John Steell, R.S.A., (1856), Photograph  
Courtesy of the University of Edinburgh, Reference: EU 0348

After Forbes' death, John Hughes Bennett was surprised when "We were then informed that he had frequently expressed a desire that after his death, the body should be examined; for the benefit of science; a circumstance we are proud to record of him, as indicative of the ardent love of knowledge by which he was ever distinguished."<sup>135</sup> The body would have been removed from

Wardie to the Edinburgh Infirmary for the actual autopsy. Given their close friendship, it is almost certain that John Goodsir carried out the autopsy of Forbes with John Hughes Bennett in attendance to record the findings.<sup>136</sup> The cause of death of Edward Forbes was recorded as “chronic abscess of the left kidney which latterly occasioned extensive abdominal disease beyond the reach of art.”<sup>137</sup>

The announcement of the death of Professor Edward Forbes was widely published in the newspapers. The first newspaper to announce his death was the *Caledonian Mercury* on 20 November 1854 which recorded, “We are satisfied that no event has happened for some years will excite more surprise, and create a more profound feeling of grief in the scientific world than the demise of Professor Edward Forbes on Saturday, in his 39<sup>th</sup> year of his age.”<sup>138</sup> Two days later, the *Witness (Edinburgh) Newspaper* carried a two-column death notice of the distinguished Professor detailing his notable career “We should seek in vain to express the full measure of grief, we may say dismay, with which the unlooked-for death of this distinguished naturalist has filled all hearts.”<sup>139</sup> On the same day, the *Morning Post Newspaper* published an extracted version of the *Caledonian Mercury*’s work. *The Athenaeum*, in a touching final tribute, wrote, “Amongst the younger men of science few have made so brilliant a career, or given promise of so much in the future, as Edward Forbes. Just as his friends were rejoicing in his having attained one of the most distinguished positions his country has to offer for the cultivation of natural history and in the leisure he had won, - looked to as a means of developing the rich store-house of facts and thought he was known to have accumulated, - he has been snatched from us.”<sup>140</sup>

Forbes had always enjoyed taking long walks through Dean Cemetery, a place that he admired and intimated that here should be his last resting place,<sup>141</sup> and on 23 November 1854, he was buried there. The *Morning Post Newspaper*, the only newspaper to cover the actual funeral gives in detail the events of his funeral, writing, “The funeral *cortege*, which assembled the Dean Chamber at two o’clock, was composed as follows: Four ushers, students, four abreast, juniors in front. College Mace, Senatus, three abreast, Principal in rear walking by himself. City Mace, Lord Provost, Magistrates and Council, Magistrates in [the] rear, Lord Provost walking by himself behind. Two mutes. Batonmen [presumably pallbearers] – the Body – Batonmen. Chief Mourners and private friends. Mourning coaches, carriages. On arriving at the ground, the

students to the left of the grave, the Senatus the front, and the council and magistrates the right hand.”<sup>142</sup>



Fig.29. Grave of Edward Forbes, Naturalist, Dean Cemetery, Edinburgh

After the funeral, a meeting was held by several friends of the late Professor who unanimously resolved to commence a subscription to procure a marble bust in fond memory of their friend with a committee being formed with members including John Hughes Bennett, John Goodsir, John Hutton Balfour as well as Alexander Christie, A.R.S.A.<sup>143</sup> Recording his profound grief at Forbes' passing some days later in his diary, John Goodsir wrote, “Edward Forbes is dead and

buried before me;- died this day, week – was buried on Thursday. He behaved at the close with his old composure and considerateness, and sweetness of nature.”<sup>144</sup>

### **In Tribute: Honouring the Memory of Edward Forbes**

The Royal Scottish Academy noted in their Annual Report of 1854 “the lamented death of Professor Edward Forbes has again made the Chair of Ancient Literature vacant”<sup>145</sup> and would be another four months until a replacement was found. Professor John Stuart Blackie,<sup>146</sup> of the Edinburgh University, warmly accepted the appointment, “adding to his acceptance of a cordial offer of his services to deliver a series of Lectures on Greek Literature and Archaeology – an offer which has been as cordially responded to by the Academy. These and other lectures will, in due time, be made [a] matter of arrangement.”<sup>147</sup>

The late Professor Forbes had left his Natural History drawings, specimens, and apparatus, to the University of Edinburgh Museum, and his scientific papers to Robert Alfred Cloyne Goodwin-Austen.<sup>148</sup> On 1 December 1854, the friends and admirers of Edward Forbes met in Kings College London when it was resolved “that a subscription be immediately commenced to defray the cost of a marble bust of the late Professor, to be presented to the Council of the College, with the view of its being placed in the large Hall opposite to the bust of the late Professor [John Frederic] Daniell.”<sup>149</sup> The bust was created by John Graham Lough, an English sculptor in 1856. A bronze medal was subsequently made of the image of the original bust by Leonard Charles Wyon, a British engraver of the Victorian era, which is the only likeness available of the actual original bust. The bronze medal is housed in the National Portrait Gallery of London.





Fig.30. Bronze Medal of Edward Forbes by Leonard Charles Wyon, date unknown, Photograph  
Courtesy of the National Portrait Gallery of London, Reference: NPG 1609

In tribute to the late Professor Edward Forbes, the *Illustrated London News* published a drawing of Forbes that was based on a daguerreotype by A. Claudet which first appeared in the newspaper's 2 December 1854 edition which is reproduced below.<sup>150</sup>

## J. G. LOCKHART, ESQ.

JOHN GIBSON LOCKHART, a famed critic and writer himself, and still more famed from his connection with the greatest of all Scotland's authors, was the son of a clergyman in Glasgow. He received his edu-



*J. G. Lockhart*  
THE LATE MR. J. G. LOCKHART.

cation at Glasgow College, and at Balliol College, Oxford. He chose the law for his profession, and was called to the Scotch bar; his success, however, as an advocate was very moderate, and he soon resigned forensic pursuits for those of literature. There he speedily attained a very high position. He was a popular contributor to *Blackwood's Magazine*, and wrote, in that journal, "Peter's Letters to his Kinsfolk." Lockhart owed his introduction to Sir Walter Scott, in 1818, to the poet Hogg. The intimacy resulted in the union of Lockhart with Sir Walter's daughter, Charlotte Sophia. The late surviving issue of this marriage, and the sole descendant of the author of "Waverley," is the present Mrs. Hope, the wife of James Robert Hope, Esq., Q.C., D.C.L., now the possessor of Abbotsford. Through Sir Walter Scott's influence Mr. Lockhart became, in 1829, the editor of the *Quarterly Review*. Apart from his contributions to magazines and reviews, Mr. Lockhart was the author of some singular novels, and some excellent biographies. His chief works of fiction were, "Valerius: a Roman Story," "Reginald Dalton," and the remarkable and startling tale, entitled "Adam Blair." Mr. Lockhart possessed a good family estate; and he was Auditor of the Duchy of Cornwall. Mr. Lockhart died on the 15th ult.

A character of Mr. Lockhart, as a critic, a novelist, and a poet, will be found in our column of "Town and Table Talk" of this week.

VACANT SEATS IN THE HOUSE OF COMMONS.—There are now no less than eight in the House of Commons vacant. Abingdon was vacated by Lord Netter's succession to the peerage; Marylebone, by Lord Dudley Stuart's death; Bedford, by the decease of Mr. H. Stuart; Coventry, by that of Mr. Gresh; East Gloucestershire, by Sir Michael Hicks Beach's death; Fermanagh, by that of Sir Arthur Brooke; Antrim, by Colonel Pakenham's death, at Inkerman; and Ayr, by that of Colonel Hunter Blair, also killed at Inkerman.

## THE LATE VISCOUNT CHEWTON.

By the death of Alma, of Viscount Chewton, the Army and the country have been deprived of the services of a most promising young officer. He died from wounds received on the heights of Alma whilst gallantly leading on his company of the Scots Fusilier Guards, and his gallant spirit was not yielded until he had received no less than thirteen. His right leg was broken by shots from the Minie rifle.

The deceased officer, William Frederick, Viscount Chewton, was born June 22, 1816; being the eldest son of William, present Earl Waldegrave—a distinguished naval officer—by Elizabeth, eldest daughter of Samuel Whitbread, Esq., by Lady Elizabeth Grey. He entered the Army in July, 1841, as an Ensign in the Line; and, in the August of 1847, he obtained his company. During the insurrection in Canada he served with the militia, and aided materially in putting the malcontents down. He subsequently proceeded to India, and served with the 3rd Foot, on the banks of the Sutlej. He particularly distinguished himself at Sohraon, for which he received a medal. Lord Chewton married, in 1850, Fanny, only daughter of the late Capt. Bastard, R.N., of Bournemouth, Devon, by whom he leaves issue three children, the last posthumous. Lord Chewton



THE LATE VISCOUNT CHEWTON, FROM A DAGUERRETYPE BY THE BROTHERS MAYER.

was removed from the Crimea to Santari, where, after a brief suffering, he expired. His remains were interred in the English Cemetery at Constantinople.

LITERATURE FOR THE ARMY IN THE CRIMEA.—It having appeared from several letters sent home by the officers and soldiers of the army now in the Crimea, that any periodicals or books, more especially of the lighter class of literature, would be most acceptable, several gentlemen have subscribed a number of magazines and volumes to form the nucleus of a cargo to be forthwith dispatched to the East. It is presumed that there are few families who will not cheerfully contribute those odd volumes which at present may be found lying about every house, perused and no longer valued here, but which would be gladly received by our gallant defenders. All contributions will be received and very carefully collected and packed, if forwarded to Mr. Arthur Smith, Egyptian-hall, Piccadilly; and Mr. James L. O'Beirne, Secretary to the General Screw Steam Company, has kindly undertaken to send on these parcels, free of any charge, to their destination.

## THE LATE PROFESSOR EDWARD FORBES, F.R.S.

In the ILLUSTRATED LONDON NEWS of last week we recorded the severe loss which the scientific world has just sustained in the death of Professor Edward Forbes, at the early age of thirty-nine, just as he



THE LATE PROFESSOR EDWARD FORBES, FROM A DAGUERRETYPE BY CLAUDET.

had attained the distinguished position of Reader Professor of Natural History in the University of Edinburgh. "His friends," says the *Scotsman*, "indeed, know well how irreplaceable is their loss. But it is more difficult to estimate the loss to science caused by the removal of one who, following, like his predecessors Walker and Jamieson, in the footsteps of Linnaeus, gave promise of raising the science of Natural History to a height nowhere yet attained."

Edward Forbes was born in 1815, in the Isle of Man. He was heard to say, that his love of natural history dated from his earliest childhood: it was inherited and all his own, for no individual of his family, or even acquaintance, had the slightest taste for scientific studies. His first printed guide or text-book was one of the dullest, "Tutton's Translation of the *Systema Naturae*;" and by the time he was seven years of age he had collected a small museum of his own. Next, however, in very early life, came the perusal of Buckland's "Reptiles," "Liquids Diluvians," "Parkinson's 'Organic Remains,' and Combe's 'Geology of England'—rather hard reading that last for a boy, and probably rather wrestled with than understood. These books, however, when he was not more than twelve years old, inspired him with a warm and abiding love of geology. At this period also he completed a Manual of British Natural History in all its departments—a youthful labour, which he afterwards found serviceable up almost to his close of life."

(Continued in Supplement, page 566.)

Fig.31. Illustrated London News, 2 December 1854, page 564

The British Museum has in its collections, a portrait of Forbes that was also based on a daguerreotype by A. Claudet which was produced in 1855. Forbes, in this engraving, is half-length standing, head turned to the left. The original daguerreotypes by Claudet have never been found. This engraving appeared in the *Literary Papers By The Late Edward Forbes, F.R.S.* (1855). It should also be noted that the National Galleries of Scotland has another engraving of this same work which is in their collections and is referenced as Accession Number SP VI 165.2





Fig.32. Engraving print made by Conrad Cook after Claudet, 1855, Photograph Courtesy of the British Museum, Museum Number: 1870.0625.1082

In about 1867, Neville Northey Burnard (1818-1878), an English sculptor best known for his portrait figures, produced a marble and granite bust of Forbes which is housed in the Manx Museum at Douglas.



Fig.33. Edward Forbes, Manx Botanist, and Naturalist, by Neville Northey Burnard (c.1867),  
Photograph Courtesy of the Manx Museum, Accession Number: 1954-1742

## **The Trail of Memories**

Even while Forbes was still alive and in good health, John Goodsir had begun to notice the earliest manifestation of his fatal disease. It was in the summer of 1850 while he was visiting the Solway estuary that he first experienced numbness and coldness of the extremities.<sup>151</sup> Forbes' death had a profound impact on John, and without hesitation, he assumed Forbes' lectures on Natural History.<sup>152</sup> Goodsir cherished the many correspondences he had with his dear friend, Forbes, and after his death had shown George Wilson "a long foolscap notebook" of Forbes dating from his student days while at the University which threw much light on Forbes' occupations during his medical studies.<sup>153</sup> Finally, Goodsir chose to purchase Forbes's former home - South Cottage, Wardie in which to spend the last years of his life as a recluse.



Fig.34. South Cottage, Wardie, near Edinburgh, where Edward Forbes died. Shortly after his death, John Goodsir purchased the residence and in an ironic twist of fate, died here also, thirteen years later. Photograph Courtesy of the Manx Natural Heritage ID: PG/12740



As his health began to deteriorate, Goodsir became increasingly reclusive, shunning social settings to devote all his remaining time to scientific endeavour. “To avoid visitors he went to bed at 8:30 P.M., and rose before 5 A.M., in this way he got five hours’ work done before Edinburgh had breakfasted. He lived in rigid simplicity and did nearly everything for himself; the sofa of the day became his bed of the night so that he slept amid his papers and special preparations, and could dress or turn to work at any time without the fear of intruding domestics.”<sup>154</sup> Years later, Sir William Banks (1842-1904), a Scottish surgeon, recollected that “Goodsir lived a curious kind of life, absolutely devoted to his science. Very few people ever entered his house, and so a kind of mystery hung about it. It was said that he worked incessantly and that he ate and drank and slept when imperious necessity to do so came upon him, and without any regards to times and seasons.”<sup>155</sup> His brother, Joseph Taylor Goodsir wrote of his numerous carriage rides with John, usually in the afternoons visiting the grave of Forbes writing on 14 January 1855, “Drove with John in the afternoon; we went to see poor Forbes’ grave.”<sup>156</sup> The lamenting for Forbes continued for the rest of John Goodsir’s life.

### **An Unknown Fact**

The General Meeting Minutes of the Royal Scottish Academy provides a wealth of information concerning the members and associates as well as the honorary professors of the Academy. An interesting and little-known fact lies buried within these old minutes concerning John Goodsir. The list of elected honorary professors to the Academy is a litany of great men of their time which included: Dr. Thomas Chalmers (1830); Professor Robert Jameson (1830); Dr. John Lizars (1839); Reverend Principal John Lee (1851); Edward Forbes (1854); David Laing (1854); and John Stuart Blackie (1855).<sup>157</sup> The proper study of anatomy was considered critical to the Royal Scottish Academy and a Life Class was established whereby the Academy elected an eminent surgeon to be their Professor of Anatomy, in respect of which they were accorded the Honorary Membership of the Academy (HRSA). The Professor of Anatomy was expected to permit the Academy's Life Class students access to his lectures and dissections, for which a small emolument was given by the Academy. Members of the Academy which usually consisted of painters acted as tutors or visitors to the Life Class. Professor John Lizars (1792-1860) an anatomist, was the Academy’s first Professor of Anatomy and served until his death on 21 May

1860. On 14 November 1860, during a General Meeting of the Academy, James Drummond, R.S.A., (1816-1877) an artist and early photographer, put forward the name of Professor John Goodsir as a prospective successor to John Lizars as the Academy's Professor of Anatomy and on discussing the matter informally with Professor Goodsir, the Professor dismissed the idea of a salary, saying the honour of being appointed the Professor of Anatomy to the Academy would be an honour enough for him and that he would not seek to take any remuneration.<sup>158</sup> However, there was a very major difference of opinion as to who should succeed John Lizars. Sir George Harvey, R.S.A., (1806-1876), a painter and later President of the Royal Scottish Academy, raised objections to Professor Goodsir having been approached and preferred Professor James Miller (1812-1864) who was Professor of Surgery at the time as his nominee.<sup>159</sup> The minutes of the Academy reflect an impasse between Sir John Watson Gordon, P.R.S.A., (1788-1864) and James Drummond, R.S.A., supporting John Goodsir and George Harvey, R.S.A., and his ally, the sculptor, John Steell, R.S.A., supporting Professor James Miller and it was agreed to do nothing.<sup>160</sup>

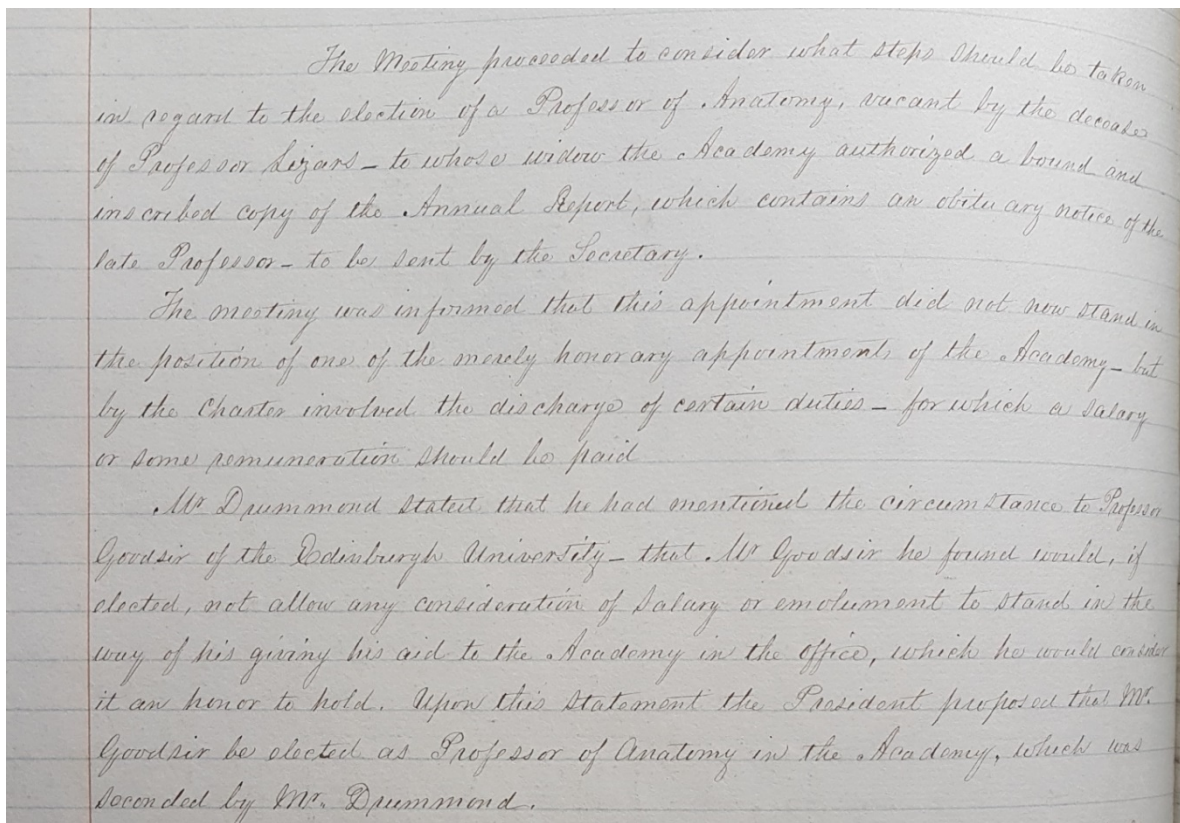


Fig.35. A portion of General Meeting Minutes of the Royal Scottish Academy, 14 November 1860, Photograph Courtesy of The Royal Scottish Academy

A week later, Drummond wrote to the Academy's Secretary, Scottish photographer David Octavius Hill, R.S.A., (1802-1870), "I confess my enthusiasm in the Life Class has rather got a check by the decision of the General Meeting [of the R.S.A.] re Anatomy. The dread of the 'Horrible Board' [re: the Board of Manufacturers who operated a rival art class] and mere friendship for another candidate being miserable arguments against the appointment as [sic] such a world celebrity as Mr Goodsir, I was looking forward to a most instructive season both to visitors [i.e. the R.S.A. members who were effectively teachers in the Life Class] and all who attend the classes and having since the meeting with Mr Goodsir, I feel more deeply than ever that we have missed such an opportunity as may never again occur of making our class something else than a mere drawing school..."<sup>161</sup> On 13 July 1864, Goodsir sent a letter to the President and Council of the Academy, writing, "Gentlemen, I have been informed that doubts have been expressed as to the Board of Manufactures appointing a Lecturer on Pictorial Anatomy in the room of the late Professor [James] Miller. Entertaining a strong sense of the advisability of affording to the Art Student an opportunity of making himself acquainted with anatomy in its bearings on art; I beg to recommend Mr Turner as a fit person for affording such instruction, should the Academy take this matter up. In the ... of Mr Turner being appointed I shall have much satisfaction in placing my anatomical discourses (?) at his discharge, Goodsir."<sup>162</sup> Although Goodsir's nomination was discounted, he never acceded to the role for which he was clearly a more than the creditable candidate and it would be an inexplicable eighteen-year interregnum before William Turner was chosen to succeed John Lizars as the Academy's Professor of Anatomy in 1878.

### **Memoir of Edward Forbes, F.R.S.**

Biographical notices of Edward Forbes were curiously few in number which was only prompted by several short notices in a few journals and societies that he was associated with in his life following his untimely death. The delay of a complete biography of Forbes was caused by the early death of his friend, George Wilson in 1859. Wilson was enthusiastic about writing a biographical work about Forbes during their younger days as Brotherhood members at the University of Edinburgh. The surviving Brothers sent their collections of Forbes material promptly to Wilson after he accepted the role of the biographer as well as Forbes' widow, the

former Emily Ashworth. Following Wilson's death, Archibald Geikie (1835-1924), the geologist and writer, decided to pick up where Wilson left off and began working on the biography using the material assembled by Wilson.

Geikie was hampered by disputes and squabbles during the writing of the actual work. Of particular interest were the actual drawings of Forbes and the great interest and influence of Alexander Macmillan (1818-1896), the publisher and co-founder of Macmillan Publishers. In a letter to Geikie dated 7 December 1860, Macmillan wrote, "I went over the whole of the sketches with [Thomas Henry] Huxley [(1825-1895) the English biologist and anthropologist] to determine which were most characteristic and effective. Then we discussed the best mode of using them and it was Huxley's strong opinion that to make a separate chapter about them would be a [unreadable] to Forbes' memory, as they don't seem to him there is significance enough for that. The proper way of using them appeared to him is to insert them as tail pieces to chapters and perhaps in one or two cases to insert a page illustration..."<sup>163</sup> Sixteen drawings were used as tail pieces to the chapters in the published *Memoir of Edward Forbes, F.R.S.*, and all the original drawings are housed in the University of Edinburgh's Centre for Research Collections. Some of these drawings are shown below.



Fig.36. Edward Forbes Drawings, Unknown date, Photograph Courtesy of the University of Edinburgh Centre for Research Collections, Sketch 2, Reference: Collection 74/11/3/1





Fig.37. Edward Forbes Drawing, unknown date, Photograph Courtesy of the University of Edinburgh Centre for Research Collections Sketch 6, Reference: Collection 74/11/3/1

The completed biography is representative of its mid-Victorian cultural milieu, and as a consequence the author's style and outlook reflect the social and political values of that period. Goodsir stressed the point that Forbes knew more of medicine than is generally supposed, and could have easily mastered what little he did not know, if he had wanted to take a medical degree.<sup>164</sup> Goodsir also revealed to Geikie that during September of 1842, while Forbes was afloat in the Gulf of Smyrna, he sent him a letter urging his immediate return, to secure his position as Professor of Botany at Kings College London.<sup>165</sup> Geikie writes that Forbes kept up a correspondence with Goodsir but more so with George Wilson regarding the organisation of the Brotherhood and his letters still bore the mystic triangle.<sup>166</sup> After the work was published in 1861, Geikie would recall in his autobiography that “the writing of it, was to me, a labour of love; I thoroughly enjoyed it while it was in progress, and was sorry when it came to an end.”<sup>167</sup>

### **An Appreciation for Art**

In addition to John Goodsir's practical anatomical draughtsmanship and sculpting, the Professor was evidently appreciative of Fine Art. At his home at 55 George Square he had a cast of a bust of William Shakespeare which he donated in 1852 to the Society of Antiquaries of Scotland who subsequently exhibited it.<sup>168</sup> Goodsir also possessed an original water-colour portrait of Dr. John Barclay (1758-1826), the Scottish comparative anatomist, which his brother, Robert Goodsir indicated “was greatly valued by him.”<sup>169</sup> Dr. Robert Goodsir loaned the portrait in 1884 to the Scottish National Portraits Loan Exhibition, the catalogue of which provides a useful description of the portrait itself. The work was painted by Andrew Geddes, A.R.A. (1783-1844), the Scottish portrait painter and etcher. It is described as measuring “7 x 5 ½ inches; and is a small to waist, to right; grey-black hair; light blue eyes; left-hand rests on skull to right.”<sup>170</sup> The water-colour portrait was never seen again after the exhibition and it is unclear if it has survived. Dr. Robert Goodsir also loaned to the same exhibition an engraving of Dr. William Cullen (1710-1790), the Scottish physician, with whom his grandfather, Dr. John Goodsir (1746-1816) had consulted on various medical cases. The engraving was described as a “small oval; white wig; dark eyes; face in profile; black gown.”<sup>171</sup> One portrait, however, has survived that was on loan during the 1884 Exhibition. This portrait is of Duncan Forbes of Culloden (1685-1747), an ancestor of the family who was Lord President of the Court of Session. The work is an oil on

canvas and attributed to Jeremiah Davison (1695?-1750?), the Anglo-Scottish portrait painter, who completed the work in about 1737. The portrait is described as “to waist, to left; white wig; dark blue eyes; lace at throat; robe of red and black” and “measures 76.20 x 63.30 cm.”<sup>172</sup> Upon the death of Dr. Robert Goodsir in 1895, the portrait was bequeathed to the National Galleries of Scotland.<sup>173</sup>



Fig.38. Portrait of Duncan Forbes of Culloden, Lord President of the Court of Session, Photograph Courtesy of the National Galleries of Scotland, Accession Number: PG 545

Another of Professor Goodsir's fine art purchases was an Old Testament subject, *The Judgement of Solomon* painted "in tempera on paper" by Scottish artist, William Dyce (1806-1864) in 1836, which was later purchased by Professor Goodsir. Dyce, an Aberdonian by birth, lived in Edinburgh from 1830 until 1838 and finding encouragement in his attempts at historic painting, instead tried portrait painting.<sup>174</sup> The work had originally been conceived as an experimental cartoon (a free-hand drawing used as the basis for a completed artwork) or a design for a textile tapestry. The tapestry's patron did not wish to proceed, and so Dyce converted the original tapestry cartoon drawing into a painting instead. Goodsir subsequently gifted the work to the Royal Scottish Academy upon the death of William Dyce in 1864. The Academy's Annual Report for that year noted, "...from the letter of John Goodsir, Esq., the very eminent Professor of Anatomy in the Edinburgh University, in which that gentleman conveys as a gift to the Academy an exquisite coloured Cartoon in temptra of 'The Judgement of Solomon.'"<sup>175</sup>

There is some controversy surrounding events associated with this donation of Goodsir to the Royal Scottish Academy. The first version of events according to Henry Lonsdale is that the painting was initially given to David Ramsay Hay (1798-1866), the Scottish artist and interior decorator, who was a friend of Goodsir's and fellow member of the Aesthetic Club. But after Hay's death in 1866, Professor Goodsir donated the work to the Royal Scottish Academy. The second version is that Hay had been entrusted with the storage of the work for Goodsir. Whether Hay had then assumed that the portrait had been gifted to him personally is not clear, but it would seem to be the most logical interpretation of what happened next. Goodsir, having decided on the painting's donation to the Royal Scottish Academy, was refused its return by Hay. On 14 July 1864, Goodsir executed a legal assignation in favour of the Royal Scottish Academy. This was referred to by the Sheriff Substitute who decided in favour of the Royal Scottish Academy and eventually Hay capitulated and the intended gift to the Royal Scottish Academy went ahead.<sup>176</sup> In 1910, the work was transferred to the National Galleries of Scotland where it is currently housed in storage. The work is quite large measuring 151.2 x 254 cm.





Fig.39. *The Judgement of Solomon* by William Dyce (1836), Photograph Courtesy of the National Galleries of Scotland, Accession Number: NG 521

### **The Death of John Goodsir**

The cumulative impact of the deaths of his brothers Harry and Archie and then his closest friend, Edward Forbes, had a devastating effect on John Goodsir's well-being. His degeneration in body and soul seems to have been accelerated by malnutrition, while his worsening lower-limb paralysis caused increasing disability. Goodsir refused the help of domestic servants to ease the load of housekeeping, but would eventually accept the sole assistance of his sister Jane. The disease from which he suffered now manifested itself in a paralytic condition of the lower extremities which continued to get worse. Goodsir for sought relief from the constant pain using hydrotherapy at the Walter Eckford's Trinity Baths.<sup>177</sup> Despite this insidious illness, Goodsir still carried on his research, lectured to his classes, and conducted examinations for degrees. He commenced his winter course of lectures in November of 1866, but before the end of the month, he collapsed in front of his class as a result of a fit.<sup>178</sup> Goodsir then returned to Wardie to spend his last few months of life where Forbes had died. On 6 March 1867, Joseph Goodsir wrote of



his brother's last moments, "I was startled in my study by hearing John speak to himself... We had given John some water which he took with difficulty through a glass tube, and immediately afterwards at my suggestion about half a glass of sherry, which he took well. This seemed to lay him to rest... It struck us John was very still; on my going to look at him I felt sure he was dying, though I could scarcely believe it. His sleep was passing into death in the gentlest manner at 3:20 P.M."<sup>179</sup> Like Forbes, John had authorised an autopsy which found that the cause of death being "atrophy of the spinal cord" and an additional entry is suggestive of those attributable to a prolonged deficiency of vitamin B 12.<sup>180</sup> His expressed wish was to be buried next to his early and much-valued friend, Edward Forbes in Dean Cemetery. The day after he died, Sarah Acland wrote a wonderfully sincere letter of condolence to Jane Goodsir in recognition of the passing of her brother, "We have heard with unfeigned sorrow that your excellent brother has been taken from you. Dr. Acland has told me of his goodness... We had heard very lately of him – nor of any increase in his ailment and his death seems sudden to us... Dr. Acland has a most affectionate remembrance of all the great kindness he had when he was a student in Edinburgh."<sup>181</sup> On 11 March 1867, the funeral, though strictly private, was attended by a large number of his students, and the University of Edinburgh suspended all classes and lectures in the afternoon as a mark of respect.<sup>182</sup> It is ironic to note that William Brodie, R.S.A., planned and designed both Forbes' and Goodsir's grave monuments. Joseph Goodsir noted in his diary on 1 July 1867, "Brodie says an exactly similar one for John is quite the thing, for there were rows of them in the Egyptian examples. The name, however, must be in the base not on the face of the obelisk as in Forbes'".<sup>183</sup>



Fig.40. Graves of Edward Forbes and John Goodsir at Dean Cemetery, Edinburgh, Photograph  
Courtesy of Alison Freebairn

## The Cast “From Nature”

In the entrance hall of the Royal College of Surgeons of Edinburgh, there is a remarkable fibreglass cast model to which a plaque on the cast reads “Cast From Nature, 1845. By John Goodsir, F.R.C.S., Edinburgh. Conservator of the Museum of the Royal College of Surgeons of Edinburgh, 1841. Professor of Anatomy in the University of Edinburgh 1848 [sic]-1867.”



Fig.41. Fibreglass cast model made by John Goodsir, Cast “From Nature” (1845), Photograph  
Courtesy of the Royal College of Surgeons of Edinburgh, Cast Number: ED. CS. 2018.31



The museum record held by the Royal College of Surgeons of Edinburgh concerning this sculpture is sparse. It notes simply the item's arrival in 1989, with no named donor and the briefest of descriptions: "Fibreglass cast of a plaster figure created in 1845 by Sir [sic] John Goodsir." However, this sculpture deserves far greater recognition as it stands as a remarkable testament to the artistic and exceptional skill of John Goodsir; but it has been discovered that another person also assisted him. The plaster cast copy of this sculpture is kept at the University Collections storage facility on the west side of Edinburgh.



Fig.42. Plaster cast copy of the Cast "From Nature," Photograph Courtesy of the University of Edinburgh Art Collection

Since the late seventeenth century, anatomical models of the human body have been used to educate as the early Italian anatomists demonstrated. In 1780-82, an anatomical Venus created by Clemente Susini can still be seen at La Specola in Florence which can be dissected into seven anatomically correct layers is an example of an early display designed to educate and was a product of its time. Artists created *Écorchés*, anatomical studies of flayed men, to study the action of muscles. Wax models were also valuable to supplement student dissection practicals, particularly when actual cadavers were difficult to obtain and decayed quickly.<sup>184</sup> As a student, John Goodsir made plaster-of-Paris casts of his anatomical dissections as well as casts of ulcers and other lesions from the patients in the Royal Infirmary and painted them with coloured melted wax.<sup>185</sup> In 1836, Frederick John Knox (1794-1873), brother of the celebrated, Dr. Robert Knox, published his work entitled, *The Anatomist's Instructor and Museum Companion: Being practical Directions for the Formation and subsequent Management of Anatomical Museums*. It listed not only techniques for making anatomical preparations but also included sections on drawing and plaster casting. The author preferred modelling with plaster of Paris because the material was easy to obtain. There is little doubt that John Goodsir was fully familiar with this anatomical curator's handbook.<sup>186</sup> Dr. Robert Knox and other teachers noticed Goodsir's skills and gave him normal and pathological specimens to mount and preserve.

It cannot be overemphasised enough that dissection was one of Goodsir's favourite activities. Like many medical researchers keen to make new discoveries, he was eager to dissect every specimen of the animal kingdom as well as human cadavers he could possibly lay his hands on. Under the inspirational supervision of a lecturer such as Dr. Robert Knox, Goodsir's fondness for dissection only strengthened, for session after session, he absorbed lessons in comparative anatomy from a master of the art.<sup>187</sup> Sir William Banks years later recollected that "John Goodsir carried with him to Anstruther, by coach and steamboat, an entire human subject for dissection, which was a very hazardous proceeding."<sup>188</sup> Indeed, only a few weeks before Goodsir's appointment as Conservator in 1841, he assisted Professor James Syme (1799-1870) in the dissection of one of his patients and with exceptional skill dissected and saved the aneurysm of the internal carotid that killed the patient. The specimen is preserved in the museum collection of the Royal College of Surgeons of Edinburgh.<sup>189</sup>





Fig.43. External Aneurism of the Internal Carotid Artery as pictured in the *London and Edinburgh Monthly Journal of Medical Science* (November 1842): 962, Royal College of Surgeons of Edinburgh, Reference: GC.13618

There are two other examples of Goodsir's dissections in the Museum of the Royal College of Surgeons of Edinburgh which also deserve note. These dissections consist of an enlarged prostate (Reference: GC.13333) and tuberculosis of the "Renal phthisis" in which Goodsir injected the arteries to demonstrate the non-vascularity of the gagged caseous walls of the cavities. (Reference: GC.13023). Even after finishing his epoch *Anatomical and Pathological Observations* in 1845, Goodsir began work on "A System of Dissections" which he intimated to the press would appear in parts. The first part of this comprehensive dissecting manual would be devoted to the dissection of the human body; however, this part-work publication never came to pass.<sup>190</sup>

As a result of Goodsir's countless dissections, no one knew human myology better than Goodsir. As early as 1841, he asked Henry Lonsdale to obtain for him an adult male to make a complete dissection of the muscles. Two years after addressing the prestigious British Association in Cheltenham, Goodsir dissected the body of drunken Edinburgh carter, who, after falling dead from his cart, remained free from decomposition for thirty days sometime during the autumn of 1858.<sup>191</sup> Even the Royal Institution, now the Royal Scottish Academy, in March of 1849, was presented with a cast of a dissection of a horse and received the thanks of the directors for a work "executed with so much spirit, and capable of being of so much value anatomically to students."<sup>192</sup> Unfortunately, the cast is no longer in their collection. When in 1876, workers discovered the old subterranean passages used by students and professors to access North College Street from the interior of the University; some remembered the location was where "Professor Goodsir fitted up an erection with a fireplace and boiler, for the dissection of an entire elephant. The animal belonged to a menagerie, but was accidentally killed near Dunbar by falling over a bridge."<sup>193</sup> The animal was purchased by Goodsir in 1856 and the viscera of this elephant formed part of the personal collection of Goodsir; it was later purchased by the University of Edinburgh after his death, but cannot be identified with any certainty. The Curator of the Anatomical Museum, Malcolm MacCallum, intimated "although [we] have no documentary evidence relating to the elephants in the Museum collection, we know they are Indian/Asian elephants and young adult females... there is every chance one of our skeletons at Anatomy [might] be the one referenced above." Certainly, the type and gender of the Museum's specimens match the type of pachyderms that would have been found in a Victorian travelling menagerie or circus since Indian/Asian can be trained whereas those from Africa cannot.



Fig.44. Anatomical Museum, the University of Edinburgh showing two Indian Elephants taken in 1960, Photograph Courtesy of John Guy, F.R.C.S.Ed.

At the start of the academic year, John Goodsir prefaced his introductory Anatomy lecture, dissecting case in hand, with the following jocular observation “Gentlemen, you have all got eyes; but you don’t know very well how to look with them. Many come here to be taught to see.”<sup>194</sup> It should be noted that in his use of casts to preserve dissections, Goodsir's exceptional technical skill made the assistance of a technician superfluous. His brother, Joseph Taylor Goodsir remarked, “John was endowed with the natural gifts of strongly-marked intellectual and artistic powers, and with the unwearied assiduity, or rather with that capacity of deriving pleasure from the exercise of his powers, which is as necessary as the possession of power itself for the accomplishment of true and valuable work.”<sup>195</sup>

Goodsir's remarkable artistic and exceptional technical skills are combined in his only surviving sculptural work, the cast "From Nature". This cast shows a linen-draped man's body, in the pose of a Christ-like "Pieta" – partially flayed and broken, but supported by the invisible arms of God. While the inspiration for such an aesthetic composition by any other anatomist might be the subject of debate, in the case of John Goodsir it is readily possible to establish that its creation was derived from an innate belief in the divine aesthetic of the human form. The artistic consequences of this belief were presented by Goodsir in two papers, "On the Principles of Beauty," to the Aesthetic Club of which he was a member from November of 1851.<sup>196</sup> The object of the Aesthetic Club was to promote enquiry into the fixed principles of beauty in nature and art. They were never published and later subsequently destroyed by Goodsir.<sup>197</sup> However, these papers perhaps provided a basis for his much later Anatomy lectures *On The Dignity of the Human Body* that Goodsir gave in 1862-63.<sup>198</sup>



Fig.45. Cast "From Nature," Photograph Courtesy of the Royal College of Surgeons of Edinburgh, Cast Number ED. C.S. 2018.31

As early as 1843, Goodsir had become acquainted with Henry Acland<sup>199</sup> when he arrived in Edinburgh to supplement the teaching which he was able to obtain at St. George's Hospital Medical School, London. Acland resided with William Pulteney Alison<sup>200</sup> to which the acquaintance ripened in due time to affectionate intimacy.<sup>201</sup> However, the person who exercised the greatest influence over Acland's immediate future was John Goodsir and during his first ten days in Edinburgh, Acland had toured the Pathology Museum of the Royal College of Surgeons of Edinburgh with Goodsir.<sup>202</sup> Acland would later write in his diary, "I was pleased" and wrote of Goodsir, "He seemed earnest, and conversant with all he had to do; but of course we went into special topics, conversing about points of arrangement, classification, and such like. He stated that they are spoiling the Museum of Coll [College] Chir [Chirurgical] in London by adding to Hunter's collection. The latter was a perfect representation of Hunter's views, and burthening it with specimens was useless. And we agreed that the true forms of collection must be twofold, one enumerating the changes to which organs are liable, all the various forms and characters, and another assorted to show the cause, progress, and ultimate result. This last scheme, the higher one, is attempted generally; but as he remarked, it is the only one worthy of a great museum."<sup>203</sup> Acland attended the University of Edinburgh as a medical student for two academic years (1843-45) but did not graduate.<sup>204</sup> In 1870, Acland received the honorary degree of Doctor of Laws from the University. Years later, Acland would write of his Edinburgh masters, "I was working under Allen Thompson, John Goodsir, and Alison – three men with no superiors and scarce rivals in their departments of Medicine, Anatomy, and Physiology in the whole kingdom."<sup>205</sup> It was with Acland's assistance that Goodsir, while Demonstrator of Anatomy to the ailing Professor Alexander Monroe *tertius*,<sup>206</sup> sculpted the cast "From Nature."<sup>207</sup> The identity of the flayed and partially dissected human subject of the sculpture was not recorded by Goodsir.<sup>208</sup>

As Conservator of the Museum of the Royal College of Surgeons of Edinburgh, Goodsir was brought in contact with the preparations of John Barclay's collection, but more especially with the Museum of Sir Charles Bell,<sup>209</sup> which the College had boldly acquired in 1824. In 1842, Goodsir had taken two old preparations of an intestine that was collected by Dr William Cruikshank and Dr William Hunter from the collection of Sir Charles Bell in which he would study and later form the basis of his work entitled "On the Structure of the Intestinal Villi In Man and certain of the Mammalia, with some observations on Digestion and the Absorption of



Chyle.”<sup>210</sup> While John Goodsir was Conservator, it was the Bell collection that inspired him and his knowledge of the *Essays On The Anatomy In Painting* (1806) authored by Bell. The work was a treatise designed to advise artists and anatomists on the structures underpinning human facial expression. Bell used the work to espouse some of his philosophical views and natural philosophy. As Bell wrote, “By anatomy, considered with a view to the arts of design, I understand not merely the study of the individual and dissected muscles of the face, or body, or limbs; I consider it as including a knowledge of all the peculiarities and characteristic differences which mark and distinguish the countenance, and the general appearance of the body, in situations interesting to the painter or statuary. The characteristics of infancy, youth, or age; the contrast of manly and muscular strength, with feminine delicacy; the appearances of diseases, of pain, and of death; the general condition of the body; in short, as marking to the eye of the beholder interesting situations; - all these form as necessary a part of the anatomy of painting as the tracing of the muscles of expression in their unexerted state; and of the changes induced upon them as emotions arise in the mind. The anatomy of painting, taken according to this comprehensive description, forms not only a science of great interest, but that from which alone the artist can derive the true spirit of observation; learn to distinguish what is essential to just expression; and be enabled to direct his attention to appearances which might otherwise escape his notice, but on which much of the effect and force, and much even of the delicacy of his delineations, will be found.”<sup>211</sup> In this work, Sir Charles Bell further expounds his views on statuary writing, “In the statuary of antiquity, we see a perpetual effort to exalt their production above the commonness of nature. In the expression of passion, they studied a grand and general effect, avoiding the representation of that minuteness or sharpness of feature and of those convulsions and distortions which are strictly natural: and indeed it is scarcely consistent with the character of a statue to represent the transitory emotions of violent passion. The statuary must exercise his genius on the more sublime and permanent emotions, as charactered in the countenance and figure; and much of the difficulty of his art consists in preventing the calmness and repose which ought to be preserved in the attitude and expression, from extinguishing all character, and degenerating into indifference and insensibility.”<sup>212</sup> In Essay VI entitled “Of Bodily Pain, Anguish, and Death” there is a drawing by Bell of an individual whose facial expressions are eerily similar to those of the two casts “From Nature.”

In the collections of the Anatomical Museum of the University of Edinburgh, there is a set of four metal modelling tools which were used by Goodsir in the construction of the cast “From Nature.” Discovering the provenance of these modelling tools has involved some detailed detection. William John Cockburn Muir was a London civil engineer and architect who shared a common interest in the pyramids of ancient Egypt with Reverend Joseph Taylor Goodsir. Cockburn-Muir was a resident of Glasgow during the 1870s having applied for a patent on improvements in the rolling stock of railways.<sup>213</sup> By the end of the decade, Cockburn-Muir was giving a series of lectures entitled “The Great Pyramid – The Sign and Witness to the Lord of Hosts” which undoubtedly sparked the keen interest of Reverend Goodsir.<sup>214</sup> It should also be noted that Cockburn-Muir tenanted a summer home at Weirhill House, Melrose in the Scottish Borders.<sup>215</sup> In 1879, Reverend Joseph Taylor Goodsir gave this set of his late brother’s modelling tools to Cockburn-Muir with the following label: “Set of four modelling tools, used to make anatomical models, engraved with ‘McKenzie’ maker's mark (?). Donor received tools in 1879 given by Goodsir’s brother, the late [sic] Joseph Taylor Goodsir, F.R.S.E., J. Cockburn-Muir (?) Melrose.” The “McKenzie” maker’s mark refers to David MacKenzie, the surgical instrument maker and cutler whose shop was located at 48 Nicolson Street less than one-hundred yards from Surgeons Hall and had been established since 1835.<sup>216</sup>



Fig.46. John Goodsir's set of four metal modelling tools used to make anatomical models including the two casts "From Nature," Photograph Courtesy, The Anatomical Museum, University of Edinburgh, Object Reference: 3512

While no record of the casting process used by Goodsir and Acland has yet been discovered, however, they likely followed the well-documented nineteenth-century process as demonstrated by Victoria and Albert Museum conservators in a recent YouTube video (<https://www.vam.ac.uk/articles/how-was-it-made-plaster-cast>)

Firstly, they would have intensively studied the partially dissected cadaver and then coated the body with a releasing agent which Ms. Borland<sup>217</sup> has suggested may have been gelatine. The cadaver's limbs were then moulded in multiple sections using plasticine supports around each limb into which liquid plaster was poured. The individual sections were then enclosed in a reinforced plaster outer "jacket" composed of hessian strips dipped in plaster which holds all the multiple sectional moulds in place and properly registered. Once the plaster jacket has been set it is then carefully opened along the line of registration pegs and the multiple sections carefully removed from the original. They would be re-positioned in the outer jacket mould and firmly bound together before pouring the liquid plaster of the future cast into this mould. The poured plaster would have been swirled around to fill all the complex voids and create a homogeneous copy of the cadaver's various parts. The separately cast limbs would then have been dowelled to the torso and then painted with a thin layer of plaster slip to fill the limb joints before smoothing of edges and filling of any blemishes from the final casting process. "A transparent sealant was then usually applied to the finished surface of the cast, but this is as yet undocumented in this instance and can only be confirmed by a museum conservator's inspection of the cast."

While there are no known early photographs of the original cast there are some in its present disassembled state in the University Collections store. However, the Anatomical Museum's Curator, Malcolm MacCallum, while researching an unaccessioned archive has discovered a photograph recording "From Nature" on display in the Museum. Displayed between two elephant skeletons and the row of busts, the date of this image of the cast cannot be determined at present, but post-dates the William Brodie bust of Professor John Goodsir (University of Edinburgh Reference: EU 0479) at the far left; the author is indebted to Malcolm MacCallum for his generosity in permitting the possible first use of this photograph in a publication.



Fig.47. Photograph of the William Brodie bust of Professor John Goodsir and the plaster cast copy of “From Nature,” (far left) from an unaccessioned archive

It was in the same year of 1845, that a second cast was made by Goodsir and Acland.<sup>218</sup> However, this cast’s plinth was white, whereas the plinth of the Edinburgh-displayed first example was black. Acland had the second cast transported back to Oxford. Acland was in Edinburgh during this period as the *Exeter Flying Post Newspaper* reported on 20 March 1845, “Mr. Henry Acland is a son of Sir Thomas Dyke Acland, Bart., M.P., who, we understand, has been at Edinburgh, for nearly a year pursuing his studies, and will remain there till he goes into residence at Oxford at Christmas next.”<sup>219</sup> On 23 October 1845, Henry Acland delivered his first inaugural lecture entitled “The Bodily Nature of Man” which was the first step in making ‘the Hunterian’ argument of the Christ Church Museum under the influence of Richard Owen and John Goodsir. Here, Acland discusses the usefulness of the scientific study of Human Anatomy to the visual arts of Painting and Sculpture writing, “I shall accordingly devote the two next Lectures to attempt to explain the differences between vegetable and animal life, and the



characteristics of both. And besides the survey of the animal [sic.animal] kingdom which the comprehensive Human Anatomist is obliged from this cause to take, his labours (if indeed they are labours) are lightened when he finds that as he studies the form of the muscles, and the mechanical contrivances of the body, & the limbs, he is brought close to the attractive and imaginative Sister Arts - Painting & Sculpture, so that the Teacher of Anatomy in an University such as ours, may be expected to direct the attention of his auditors to what is Truth in the Anatomical disposition of the Figure, and to assist the Masters in the Arts of Design in the formation of a pure and correct taste, according to chaste and established models. He may when occasion and time permit, point out what is known of the influence of mental passion, upon Expression and Feature, and exemplify, as he has means, the works both ancients and moderns, the application of Anatomical knowledge to artistic design."<sup>220</sup> By February of 1846, Acland was back at Oxford writing a testimonial in favour of Goodsir for his candidacy for the Chair of Anatomy, "The result of Mr. Goodsir's labours now visible in the Anatomical and Physiological department of the University of Edinburgh, is a monument to his indefatigable energy, directed by the soundest judgement and the greatest skill... All that Mr. Goodsir undertakes is executed with the skill and zeal of an artist."<sup>221</sup> In 1853, Henry Acland, in his *Synopsis Of The Physiological Series In The Christ Church Museum* wrote, "In the adjoining room is a figure, cast under the direction of Professor Goodsir intended to show the form of the Limbs in Death."<sup>222</sup> It was not until September of 1893, that the second cast is mentioned by Acland in a letter to Sir William Turner<sup>223</sup> before the opening of the new anatomy department at the University Museum writing, "Thomson [Dr. Arthur Thomson, University Lecturer in Human Anatomy] has got a very nice little place. I have given him the Fighting Gladiator (a splendid cast), Antinous, and Venus of Milo types of living human form – the first in action, the others quiet, erect – and Goodsir's cast of the dead body. And Charlie Robertson<sup>224</sup> was made for him [Thomson] a considerable number of beautiful dissections; so you will see it is Goodsir over again and Edinburgh."<sup>225</sup>

In 1906, the *British Medical Journal* published a description of the Oxford Medical School's Department of Human Anatomy wherein reference is made to the second cast "From Nature," "The central hall contains fine casts of the Fighting Gladiator, the Antinous, and the Venus of Milo as types of the human form. There is also a cast of the dead body made by Goodsir."<sup>226</sup>

The layout of the exhibited casts, including "From Nature" at the far right, is recorded in the contemporary photograph that accompanied the article.

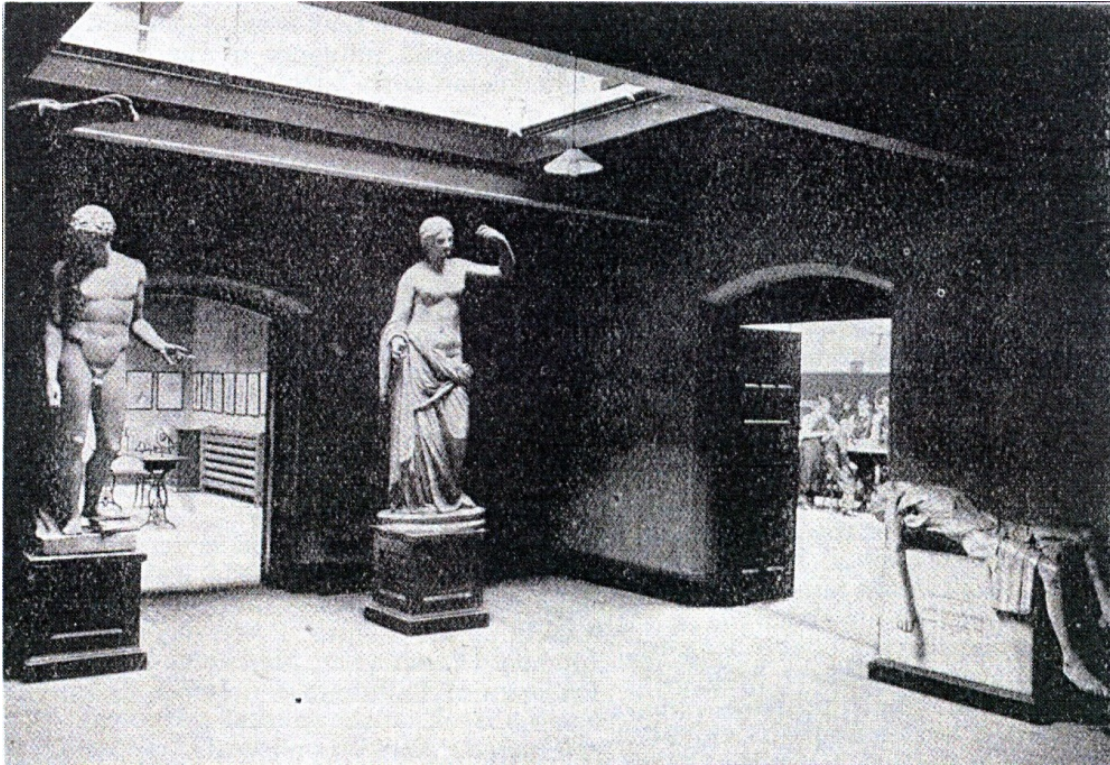


Fig.48. The second cast of “From Nature” referred to as a cast “of the dead body” in the central hall of the Oxford Medical School, Department of Human Anatomy, Photograph Courtesy of *The British Medical Journal*, 23 June 1906, page 1483

I cannot emphasize enough John Goodsir’s deeply – held belief that anatomy had a significant role in the artistic depiction of “the divine artistry of the human form” cannot be overemphasised. These two casts “From Nature” unequivocally exemplify this belief, which wholly contradicts the mythical connection made by generations of Edinburgh medical students that it was derived from David’s portrait of “Death of Marat.”

In 2010-12, Ms. Christine Borland, the contemporary artist, completed a masterful and exquisite copy of John Goodsir and Henry Acland’s cast “From Nature.” It is a remarkable piece of sculpture which demonstrates her tremendous insight and skill. In her statement of her Morton

Award film, Ms. Borland wrote, “The film will attempt to reintroduce the intimacy inherent in the original dissection and casting procedures, capturing the cast as it becomes an organic form once again, producing water as it cools and condenses in a glass museum case. When projected life-size, the real-time film of approx. 90 mins duration, will slow the viewer to a contemplative state it is documents the figure, first veiled and obscured, then traced by the camera as it is slowly revealed, drop by drop.”



Fig.49. Christine Borland, Film Still, NoBodies, Cast From Nature, 2011 (Made possible by The Morton Award for lens based media, 2010)

Ms. Borland, in an interview conducted in 2010, discussed her evaluation of the significance of Goodsir’s work, necessarily without the benefit of this research. After locating the work in the Anatomical Museum, she contacted the head of Edinburgh’s Anatomy Department, Dr. Gordon Findlater, who was reported to be “completely distraught that all these damaged things often lack any proper documentation.”<sup>227</sup>

As to the identity of the flayed male cadaver used as the subject of this posed work, no surviving documentary record has yet to be found. However, what can be said is that Medical Historian, Ruth Richardson’s earlier supposition that the cadaver used for the cast might have been the



documented dissection of the drunken carter does not match the timeline of the work which was completed in 1845 – some years before the unfortunate carter’s demise. Speculating on how the work was cast in an era before the availability of rubber moulding Ms. Borland suggests various hypotheses using either plaster directly applied onto the surface of a body or perhaps even gelatine. Whatever process Goodsir developed it had to be such that Acland was able to make his second copy immediately afterwards, which from a layperson understands would surely not have been possible if the plaster had been directly applied to the corpse?



Fig.50. Christine Borland, Film Still, *NoBodies, Cast From Nature*, 2011 (Made possible by The Morton Award for lens based media, 2010)

Ms. Borland contended that “Even if an artist had made the cast I would say they would be acting under instruction of the anatomist I very much doubt the artist would be making the decision about the pose, I would really feel the artist in this case – if indeed it was an artist or more likely a technician – if the artist was asked and commissioned to make the pose, they would have been asked to make use of many references, in this case referring to the *Pieta*. From other things I have looked at in the period the ‘voice’ of the artist or an independent aesthetic decision-making of an artist really is not discussed – the person who is making those decisions is the anatomist, such as Hunter. It is then credited as the work of the anatomist, no artist

mentioned there and any aesthetic decision-making is an expression of the medical professional.”<sup>228</sup>



Fig.51. Christine Borland, Film Still, *NoBodies*, Cast From Nature, 2011 (Made possible by The Morton Award for lens based media, 2010)

While Ms. Borland's assumption might have been correct for other anatomists, contemporary comments about John Goodsir's exceptional modelling skills while Demonstrator make this assumption improbable. Goodsir, assisted by Acland, not only conceived the design, but as surely as one can be, carried out the practical casting processes in person through to its successful completion.

Why it was created is a question to which Ms. Borland posited a couple of potential reasons perhaps as a memento of the anatomist's technical skill or maybe to mark the anatomist's belief in the elevation of the human body? In the case of Goodsir, the answer was possibly both, but more practically surely as a prestigious centrepiece in the foyer of the Conservator's own museum. There it would have reminded visitors of the profession's association with a divine will and purpose before being met by the ghoulish spectacle of serried ranks of anatomised human organs and babies in spirit jars! Could "From Nature" perhaps have been a conscious



effort by Goodsir “to re-market” the tarnished reputation of “The Anatomist?” But for Ms. Christine Borland’s twenty-first-century re-discovery of this lost Victorian work of art, it might have remained hidden where she found it – “in a corridor alongside other neglected and damaged objects”<sup>229</sup> and for that, we must be heartily grateful. Furthermore, her reappraisal of Goodsir’s and Acland’s work once again demonstrates the value of museum collections research and its artistic application for a present-day audience.



Fig.52. Christine Borland, Film Still, NoBodies, Cast From Nature, 2011 (Made possible by The Morton Award for lens based media, 2010)

### **“The Youthful Companions” – In Conclusion**

Edward Forbes’ genius truly exemplified that of Victorian polymath, whose multiplicity of interests could have sent him on career in any direction that would have been crowned with success and public acclamation. In the field of natural history, he contributed detailed and carefully documented catalogues of animals and plants from different regions of the world together with numerous articles to journals and his few published works. In literature, there are countless lists of various papers and contributions to journals, and a host of poetical compositions on almost every subject imaginable, leavened by some serious pieces of poetry that

revealed Forbes' true self. In art, there are endless sketches of men and things, illustrated poems, water-colour drawings, and careful designs for future scientific publications.<sup>230</sup>



Fig.53.. Edward Forbes, Lithograph by T.H. Maguire, 1849, Wellcome Collection, Reference: 3000i

In Edward Forbes, was a union of qualities valuable and varied; possessing the investigation and generalisation of the man of science, the skillful hand of the artist, the imaginative mind of the poet, and the truthfulness and simplicity of an upright and noble nature.<sup>231</sup> Sydney Thompson

Dobell, the English poet, in his “Epigram on the death of Edward Forbes” written shortly after Forbes’ death captured the essence of the man himself writing,

“Nature, a jealous mistress, laid him low.  
He woo’d and won her; and by love made bold,  
She showed him more than mortal man should know;  
Then slew him last her secrets should be told.”<sup>232</sup>

It is therefore somewhat ironic that his brilliant path through life was brought to a sudden and untimely conclusion by the unhappy triggering of incipient malarial fever by a field excursion in his later years in the worst of Scottish weather. As in the case with his old friend and fellow *frater*, Dr. Harry Goodsir whom Forbes drew before he sailed with Sir John Franklin, both were taken far much too early in the prime of their careers.

As Henry Lonsdale wrote “the youthful companions – John Goodsir and Edward Forbes – who sat on the same benches as students, and had fraternised so well in natural history research, and struggled up the arduous steep of science to professional eminence and European fame, came to breathe their last under the same roof.”<sup>233</sup> It is a testament to the academic ability of the Universal Brotherhood of the Friends of Truth that six of its members later occupied chairs in the University of Edinburgh namely: Edward Forbes, John Goodsir, John Hughes Bennett, John Stuart Blackie, Lyon Playfair, and George Wilson. Both Forbes and Goodsir shared similar what would be called today “driven-personalities” that caused them to exhaust themselves in their respective fields of scientific research. In 1848, John received a foreshadowing letter from an old friend that read “Suffer a word of caution from an old friend. It is better to live for the advancement of science than risk adding another name to the list of its Martyrs.”<sup>234</sup> Both of these the youthful “companions and collaborators” are buried next to each other, reflecting the closeness of their enduring firm friendship in Life.



Fig.54. Hill/Adamson calotype of Professor Edward Forbes of Kings College London, in his youthful days taken circa 1843-1847, Photograph Courtesy of the National Galleries of Scotland  
Accession Number: PGP HA 890

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- <sup>1</sup> Mills, Eric L. "A view of Edward Forbes, naturalist," *Archives of Natural History*, 1, 3 (1984): 365-393.
- <sup>2</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 32.
- <sup>3</sup> Baptismal Record of John Goodsir, 17 April 1814, Anstruther Easter Parish Records, Old Parish Records 402/003 0054.
- <sup>4</sup> Herdman, W.A. "The Life and Work of Edward Forbes," *Proceedings And Transactions Of the Liverpool Biological Society Volume XXX, Session 1915-1916* (Liverpool: C. Tinling and Company, 1916), 5.
- <sup>5</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 14-15.
- <sup>6</sup> Herdman, W.A. "The Life and Work of Edward Forbes," *Proceedings And Transactions Of the Liverpool Biological Society Volume XXX, Session 1915-1916* (Liverpool: C. Tinling and Company, 1916), 55.
- <sup>7</sup> *The North British Review*, November 1856 and February 1857, Volume XXVI (New York: Leonard Scott and Company, 1857), 204-205.
- <sup>8</sup> *The Edinburgh New Philosophical Journal, January-April 1855, Volume I* (Edinburgh: Adam and Charles Black, 1855), 136.
- <sup>9</sup> Matriculation Roll of Edward Forbes, 5 November 1831, EUA IN1 ADS STA 2, Centre for Research Collections, Edinburgh University Library.
- <sup>10</sup> James Hamilton (1767-1839) was a Scottish physician and professor of medicine and midwifery at the University of Edinburgh from 1800 to 1839.
- <sup>11</sup> Bennett, John Hughes. *Memoir of the late Professor Edward Forbes* (Edinburgh: Sutherland and Knox, 1855), 4.
- <sup>12</sup> Robert Graham (1786-1845) Scottish physician and botanist.
- <sup>13</sup> Robert Jameson, H.R.S.A., (1774-1854) was a Scottish naturalist and mineralogist.
- <sup>14</sup> Patrick Syme, R.S.A., (1774-1845) was a painter and prominent in the foundation of the [Royal] Scottish Academy in 1826.
- <sup>15</sup> Letter of Robert A. Goodsir to Sir Richard Owen, 6 June 1884, Natural History Museum London, Library and Archives, Richard Owen Collection Reference: EX 18069/196-197.
- <sup>16</sup> *The St. Andrews University Calendar For The Year 1896-97* (William Blackwood and Sons, 1896), 38.
- <sup>17</sup> Bennett, John Hughes. *Memoir of the late Professor Edward Forbes* (Edinburgh: Sutherland and Knox, 1855), 4.
- <sup>18</sup> Herdman, W.A. "The Life and Work of Edward Forbes," *Proceedings And Transactions Of the Liverpool Biological Society Volume XXX, Session 1915-1916* (Liverpool: C. Tinling and Company, 1916), 57.
- <sup>19</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 143.
- <sup>20</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 143.
- <sup>21</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 144.
- <sup>22</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 144-146.
- <sup>23</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 32.
- <sup>24</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 19-20.
- <sup>25</sup> Lyon Playfair (1818-1898) was a British scientist and Liberal politician.
- <sup>26</sup> Reid, Wemyss. *Memoirs and Correspondences of Lyon Playfair* (London: Cassell and Company, 1899), 39.
- <sup>27</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 20.
- <sup>28</sup> Knox, Robert. "On the Food of certain Gregarious Fishes," *The Zoologist: A Popular Miscellany of Natural History, Volume Thirteen* (London: John Van Voorst, 1855): 4718.
- <sup>29</sup> Currie, Andrew S., "Robert Knox, Anatomist, Scientist, and Martyr," *Proceedings of the Royal Society of Medicine*, 26, no.1 (1932): 41.
- <sup>30</sup> Herdman, W.A. "The Life and Work of Edward Forbes," *Proceedings And Transactions Of the Liverpool Biological Society Volume XXX, Session 1915-1916* (Liverpool: C. Tinling and Company, 1916), 56.
- <sup>31</sup> Herdman, W.A. "The Life and Work of Edward Forbes," *Proceedings And Transactions Of the Liverpool Biological Society Volume XXX, Session 1915-1916* (Liverpool: C. Tinling and Company, 1916), 79.

- <sup>32</sup> Bennett, John Hughes. *Memoir of the late Professor Edward Forbes* (Edinburgh: Sutherland and Knox, 1855), 6.
- <sup>33</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 179.
- <sup>34</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 9.
- <sup>35</sup> Forbes studied Medicine at the University of Edinburgh for five years from 1831/32 to 1835/36. He appears to have intended to take his medical degree, as he is in the 1836 Medical Examinations Book, but is marked as 'withdrawn.' After a year's absence from he returned to study Arts for two further years, 1837/38 to 1838/39 but did not graduate as was common back then.
- <sup>36</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 59.
- <sup>37</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 61.
- <sup>38</sup> Letter of James B Laughton to Archibald Geike, 2 July 1861, Collection 74/11/3/24, Centre for Research Collections, Edinburgh University Library.
- <sup>39</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 61.
- <sup>40</sup> Turner, A. Logan. *Sir William Turner, K.C.B., F.R.S., Professor of Anatomy and Principal and Vice-Chancellor of the University of Edinburgh* (Edinburgh: William Blackwood and Sons, 1919), 179.
- <sup>41</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 20-21.
- <sup>42</sup> Robert Nasmyth (1791-1870) was a Scottish dental surgeon from Edinburgh and was Surgeon-Dentist to Queen Victoria in Scotland. It should be also noted that one of the most distinguished of Nasmyth's apprentices was John Goodsir.
- <sup>43</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 45.
- <sup>44</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 63.
- <sup>45</sup> According to the Minutes of the Wernerian Natural History Society, Edward Forbes was proposed for membership on 26 January 1839 and admitted for membership on 9 February 1839. John Goodsir was proposed for membership on 14 November 1840 and admitted for membership on 28 November 1840. (Minutes of the Wernerian Natural History Society, Volume 2, 11 December 1830-16 April 1858, Collection 206/12, Centre for Research Collections, Edinburgh University Library).
- <sup>46</sup> Forbes, Edward. "On two British Species of Cydippe," *The annuals and magazine of natural history: zoology, botany, and geology* (London: Taylor and Francis, 1839), 145.
- <sup>47</sup> Goodsir, John. "On certain Peculiarities in the Short Sun-Fish (*Orthogoriscus Mola*)," *Edinburgh New Philosophical Journal, Volume XXX (October 1840-April 1842)*: 189.
- <sup>48</sup> *Fife Herald Newspaper*, 6 October 1842, 2.
- <sup>49</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 149.
- <sup>50</sup> Bennett, John Hughes. *Memoir of the late Professor Edward Forbes* (Edinburgh: Sutherland and Knox, 1855), 8.
- <sup>51</sup> Royal Society of Edinburgh. *Proceedings of the Royal Society of Edinburgh, Volume III, December 1850 to April 1857* (Edinburgh: Neill and Company, 1857), 27.
- <sup>52</sup> *Proceedings and Transactions of the Liverpool Biological Society, Volume XXVII* (Liverpool: C. Tinling and Company 1913), 74.
- <sup>53</sup> Herdman, W.A. "The Life and Work of Edward Forbes," *Proceedings And Transactions Of the Liverpool Biological Society Volume XXX, Session 1915-1916* (Liverpool: C. Tinling and Company, 1916), 59.
- <sup>54</sup> Bennett, John Hughes. *Memoir of the late Professor Edward Forbes* (Edinburgh: Sutherland and Knox, 1855), 8-9.
- <sup>55</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 388.
- <sup>56</sup> No. 21 Lothian Street once stood where the back corner of the National Museum of Scotland stands presently and was demolished sometime around 1919 to make way for the extension to the Museum. The residence was next door to the University of Edinburgh's Old College.

- <sup>57</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 102.
- <sup>58</sup> George Edward Day (1815-1872) was a Welsh physician and later became Chandos Professor of Anatomy and Medicine at the University of St. Andrew in 1849. In 1857, while walking alone on Helvellyn that he broke his arm in an accident and never fully recovered. He settled at Torquay for his health, but became a permanent invalid for the remainder of his life.
- <sup>59</sup> John Reid (1809-1849) studied medicine at the University of Edinburgh and was a skilled demonstrator to Dr. Robert Knox and close friend of Forbes and Goodsir. He was appointed in 1830, as assistant physician in the clinical wards of the Edinburgh Infirmary. Reid was later appointed to the Chandos Chair of Anatomy at the University of St. Andrews. By 1848, it was determined that Reid had cancer of the tongue and John Goodsir assisted in two operations to remove one-third of Reid's tongue which had cancer. Reid eventually died on 30 July 1849. (Harris, D.A. "St. Andrews Physiologist of the Past. The Opening lecture in the class of Physiology, in the United College, University of St. Andrews," *Edinburgh Medical Journal*, 8, 5 (November 1900): 425.
- <sup>60</sup> John Hughes Bennett (1812-1876) was an English physician, physiologist, and pathologist.
- <sup>61</sup> Gray, James. *History of the Royal Medical Society, 1737-1937* (Edinburgh: University Press, 1952), 161.
- <sup>62</sup> Banks, William Mitchell Sir. *Introductory Address to the Anatomical Society of the University of Liverpool Delivered 15 January 1904* (Liverpool: C. Tinling and Company, 1904), 12.
- <sup>63</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 103, 106.
- <sup>64</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 73.
- <sup>65</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 306.
- <sup>66</sup> Thomas Graves (1802-1856) was a Captain in the Royal Navy and naturalist who worked extensively as a surveyor in the Mediterranean.
- <sup>67</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 328.
- <sup>68</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 360.
- <sup>69</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 21.
- <sup>70</sup> Minute Book of St. Andrews Literary and Philosophical Society 1838-1861, 4 February 1839, University of St. Andrews Special Collections Archive, Call Number UYUY 8525/1.
- <sup>71</sup> Letter of Edward Forbes, 24 January 1845, Goodsir Papers A.R.C., 4.3/2, Folder 12 (3) Royal Scottish Geographical Society.
- <sup>72</sup> Letter of Edward Forbes, 24 February 1845, Goodsir Papers A.R.C., 4.3/2, Folder 12 (4) Royal Scottish Geographical Society.
- <sup>73</sup> Hugh Cuming (1791-1865) was an English collector of natural history, particularly on conchology and botany.
- <sup>74</sup> Letter of Harry Goodsir, 3 April 1845, Goodsir Papers A.R.C., 4.3/2, Folder 16 (2) Royal Scottish Geographical Society.
- <sup>75</sup> Letter of Harry Goodsir, 11 April 1845, Goodsir Papers A.R.C., 4.3/2, Folder 16 (5) Royal Scottish Geographical Society.
- <sup>76</sup> Sir Joseph Dalton Hooker (1817-1911) was a British botanist and explorer.
- <sup>77</sup> Darwin Correspondence Project, "Letter no. 849," accessed on 13 September 2020, <https://www.darwinproject.ac.uk/letter/DCP-LETT-849.xml>.
- <sup>78</sup> Crichton, David. *Elijah: Lectures on Old Testament History by the late Rev. David Crichton, with Memoir by the Rev George Ogilvy Elder* (Edinburgh: Macniven and Wallace, 1888), xiv.
- <sup>79</sup> Crichton, David. *Elijah: Lectures on Old Testament History by the late Rev. David Crichton, with Memoir by the Rev George Ogilvy Elder* (Edinburgh: Macniven and Wallace, 1888), xiv.
- <sup>80</sup> Carte de visite drawing of Dr. Harry D.S. Goodsir, Richard Owen Collection, Reference: EX 18069.
- <sup>81</sup> Robert Brown (1773-1858) was a Scottish botanist and paleobotanist.
- <sup>82</sup> Letter of Sir John Franklin, 9 July 1845, Scott Polar Research Institute, ms248.296.19
- <sup>83</sup> Robert Alfred Cloyne Godwin-Austen (1808-1884) was an English geologist.
- <sup>84</sup> Forbes, Edward. Continued and edited by Goodwin-Austen, Robert. *The Natural History of the European Seas* (London: John Van Voorst, 1859), 50.

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- <sup>85</sup> Alexander Monro *tertius* (1773-1859) was a Scottish anatomist and medical educator at the University of Edinburgh Medical School.
- <sup>86</sup> James David Forbes (1809-1868) was a Scottish physicist and glaciologist who worked extensively on the condition of heat and seismology who invented the seismometer in 1842.
- <sup>87</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 143-144.
- <sup>88</sup> *Testimonials In Favour Of John Goodsir, F.R.S.E.: Candidate For The Chair Of Anatomy In The University Of Edinburgh* (Edinburgh: W. MacPhail, 1846), 63-64.
- <sup>89</sup> University of Edinburgh Senate Minutes, 2 May 1846, Reference Number: EUA IN1 GOV SEN/MIN/1, Centre for Research Collections, Edinburgh University.
- <sup>90</sup> John Goodsir Certificate of Election to the Royal Society, 11 June 1846, The Royal Society of London Library and Archives, Reference Number EC/1846/23.
- <sup>91</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 70.
- <sup>92</sup> John Hunter (1728-1793) was a Scottish surgeon and one of the most distinguished scientists and surgeons of his day.
- <sup>93</sup> Sir Richard Owen (1804-1892) was an English biologist, comparative anatomist, and paleontologist.
- <sup>94</sup> Henry Fox Talbot (1800-1877) was an English scientist, inventor, and photography pioneer who invented the salted paper and calotype processes.
- <sup>95</sup> Diary of the Reverend Joseph Taylor Goodsir, 1 July 1867, Goodsir Papers, Gen 299, Centre for Research Collections, Edinburgh University Library.
- <sup>96</sup> Sir Byrom Bramwell (1847-1931) was an eminent British brain surgeon, medical author, and artist.
- <sup>97</sup> Bramwell, Byrom, "The Edinburgh Medical School and its professors in my student days 1865-69," *Edinburgh Medical Journal*, 30 (4) (1923): 136-137.
- <sup>98</sup> William Augustus Guy (1810-1885) was a British physician and medical statistician. His work, *Principles of Forensic Medicine* first published in 1844 became a standard work.
- <sup>99</sup> John Menzies Campbell (1887-1974) was a collector of dental instruments, paintings, and books.
- <sup>100</sup> Gray, James. *History of the Royal Medical Society 1737-1937* (Edinburgh: Edinburgh at the University Press, 1952), 163.
- <sup>101</sup> Edinburgh's Professional Photographers. Accessed at: [www.edinbphoto.org.uk](http://www.edinbphoto.org.uk).
- <sup>102</sup> Photograph of Professor John Goodsir, National Archives, Kew, Reference: COPY 1/13/180.
- <sup>103</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 149.
- <sup>104</sup> John Cleland (1835-1924) was a Professor of Anatomy at the University of Glasgow.
- <sup>105</sup> Cleland, John; MacKay, John Yule; Young, Robert Bruce. *Memoirs and Memoranda in Anatomy, Volume I* (London: Williams and Norgate, 1889), 159.
- <sup>106</sup> Cleland, John; MacKay, John Yule; Young, Robert Bruce. *Memoirs and Memoranda in Anatomy, Volume I* (London: Williams and Norgate, 1889), 159.
- <sup>107</sup> Diary of the Reverend Joseph Taylor Goodsir, 10 July 1867, Goodsir Papers, Gen 299, Centre for Research Collections, Edinburgh University Library.
- <sup>108</sup> William Brassey Hole, R.S.A., (1846-1917) was a painter, etcher, and engraver.
- <sup>109</sup> William Drummond Young, R.S.A., (1854-1924) was a painter and professional photographer.
- <sup>110</sup> *Greenock Telegraph and Clyde Shipping Gazette*, 16 February 1889, 3.
- <sup>111</sup> William Brodie, R.S.A., (1815-1881) was a Scottish sculptor.
- <sup>112</sup> *The Royal Scottish Academy 1826-1916* (Glasgow: James Maclehose and Sons, 917), 42.
- <sup>113</sup> *Edinburgh Evening Courant Newspaper*, 15 February 1868, 6.
- <sup>114</sup> Diary of the Reverend Joseph Taylor Goodsir, 16 May 1868, Goodsir Papers, Gen 299, Centre for Research Collections, Edinburgh University Library.
- <sup>115</sup> *Dundee Courier Newspaper*, 18 May 1870, 3.
- <sup>116</sup> *Glasgow Herald Newspaper*, 1 September 1870, 6.
- <sup>117</sup> David Watson Stevenson, R.S.A., (1842-1904) was a Scottish sculptor.
- <sup>118</sup> University of Edinburgh. Biographical Notes on the Busts in the Upper Library Hall, 198.
- <sup>119</sup> University of Edinburgh Senate Minutes, 26 July 1895, Reference Number: EUA IN1 GOV SEN MIN /1, Centre for Research Collections, Edinburgh University Library.

- <sup>120</sup> University of Edinburgh Senate Minutes, 30 November 1895, Reference Number: EUA IN1 GOV SEN MIN /1, Centre for Research Collections, Edinburgh University Library.
- <sup>121</sup> "Inaugural Lecture of Edward Forbes," *Monthly Journal of Medical Science*, 1 June 1854, 9 (54): 560-568.
- <sup>122</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 561.
- <sup>123</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 562.
- <sup>124</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 563-564.
- <sup>125</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 567.
- <sup>126</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 567.
- <sup>127</sup> John Wilson, H.R.S.A., (1785-1854) was a Scottish advocate, literary critic, author, and Professor of Moral Philosophy at the University of Edinburgh.
- <sup>128</sup> Royal Scottish Academy Annual Report, 1854.
- <sup>129</sup> *Association Medical Journal*, Volume 2, No. 101 (December 8, 1854), 1106.
- <sup>130</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 568.
- <sup>131</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 569.
- <sup>132</sup> Death Record of Edward Forbes, 18 November 1854, Old Parish Records, Edinburgh St. Cuthberts 685/2 620 60.
- <sup>133</sup> John Steell, R.S.A., (1804-1891) was a Scottish sculptor.
- <sup>134</sup> "Sketch of the Life of the Late Edward Forbes," *Transactions of the Botanical Society: Volume V* (1854): 39.
- <sup>135</sup> Bennett, John Hughes. *Memoir of the late Professor Edward Forbes* (Edinburgh: Sutherland and Knox, 1855), 19.
- <sup>136</sup> "Biography of the Late Professor E. Forbes," *Monthly Journal of Medicine (Edin.)* 20, 1 (January 1855): 90.
- <sup>137</sup> Bennett, John Hughes. *Memoir of the late Professor Edward Forbes* (Edinburgh: Sutherland and Knox, 1855), 19.
- <sup>138</sup> *Caledonian Mercury Newspaper*, 20 November 1854, 3.
- <sup>139</sup> *The Witness (Edinburgh) Newspaper*, 22 November 1854, 2.
- <sup>140</sup> *The Athenaeum* (30 November 1854): 1431.
- <sup>141</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 568.
- <sup>142</sup> *The Morning Post Newspaper*, 27 November 1854, 5.
- <sup>143</sup> Bennett, John Hughes. *Memoir of the late Professor Edward Forbes* (Edinburgh: Sutherland and Knox, 1855), 23.
- <sup>144</sup> *The North British Review November 1856 and February 1857, Volume XXVI* (New York: Leonard Scott and Company, 1857), 204-205.
- <sup>145</sup> *Royal Scottish Academy Annual Report 1854*.
- <sup>146</sup> John Stuart Blackie, H.R.S.A., (1809-1895) was a Scottish scholar and man of letters.
- <sup>147</sup> *Royal Scottish Academy Annual Report 1855*.
- <sup>148</sup> Robert Alfred Cloyne Goodwin-Austen (1808-1884) was an English geologist who was entrusted with the completion of a work intended by Forbes which was entitled: *Natural History of the European Seas* published in 1859.
- <sup>149</sup> *Association Medical Journal*, Volume 2, no.101 (December 8, 1854), 1106.
- <sup>150</sup> *Illustrated London News*, 2 December 1854, 564.
- <sup>151</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 149.
- <sup>152</sup> Goodsir, John. "On life and organisation," Lecture to the Royal Medical Society, 1856. Not previously published. In Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 286-322.
- <sup>153</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 152.



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- <sup>154</sup> Arnold, Frederick. *Tuning-points in life* (New York: Harper and Brothers, 1873), 175.
- <sup>155</sup> "Literary Notes," *British Medical Journal*, 2, 21 (December 1901): 1817.
- <sup>156</sup> Diary of the Reverend Joseph Taylor Goodsir, 14 January 1855, Goodsir Papers, Gen 295, Centre for Research Collections, Edinburgh University Library.
- <sup>157</sup> Holmes, Charles; Baldry, A.L. *Royal Scottish Academy 1826-1907* (London New York: Offices of "The Studio," 1907).
- <sup>158</sup> General Meeting Minutes of the Royal Scottish Academy, 14 November 1860, Archive Collection, Royal Scottish Academy of Art and Architecture.
- <sup>159</sup> General Meeting Minutes of the Royal Scottish Academy, 14 November 1860, Archive Collection, Royal Scottish Academy of Art and Architecture.
- <sup>160</sup> General Meeting Minutes of the Royal Scottish Academy, 14 November 1860, Archive Collection, Royal Scottish Academy of Art and Architecture.
- <sup>161</sup> Letter of James Drummod, R.S.A., (1816-1877) to David Octavius Hill, R.S.A., (1802-1870) (Secretary), 21 November 1860, Archive Collection, Royal Scottish Academy of Art and Architecture.
- <sup>162</sup> Letter of Professor John Goodsir to the President and Council of the Royal Academy, 13 July 1864, Archive Collection, Royal Scottish Academy of Art and Architecture.
- <sup>163</sup> Letter of Alexander Macmillan to Archibald Geikie, 7 December 1860, Collection 74/11/3/42, Centre for Research Collections, Edinburgh University Library.
- <sup>164</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 175.
- <sup>165</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 311-312.
- <sup>166</sup> Wilson, George; Geikie, Archibald. *Memoir of Edward Forbes, F.R.S., Late Regius Professor Of Natural History In The University of Edinburgh* (Cambridge and London: Macmillan and Company, 1861), 381.
- <sup>167</sup> Geikie, Archibald. *A Long Life's Work An Autobiography* (London: Macmillan and Company, 1924), 75.
- <sup>168</sup> *Edinburgh Evening Courant Newspaper*, 10 February 1852, 2.
- <sup>169</sup> Letter of Robert A. Goodsir to Sir Richard Owen, 6 June 1884, Natural History Museum London, Library and Archives, Richard Owen Collection Reference: EX 18069/196-197.
- <sup>170</sup> *Scottish National Portraits Catalogue Of Loan Exhibition Presentation Edition* (Edinburgh: Board of Manufactures, 1884), 269-273.
- <sup>171</sup> *Scottish National Portraits Catalogue Of Loan Exhibition Presentation Edition* (Edinburgh: Board of Manufactures, 1884), 649-652.
- <sup>172</sup> *Scottish National Portraits Catalogue Of Loan Exhibition Presentation Edition* (Edinburgh: Board of Manufactures, 1884), 198-201.
- <sup>173</sup> Edinburgh Sheriff Court Wills SC70/4/281.
- <sup>174</sup> *Morning Post Newspaper*, 18 February 1864, 5.
- <sup>175</sup> *Royal Scottish Academy Annual Report 1864*.
- <sup>176</sup> Email communication of Helen Smailes, Senior Curator of British Art, Scottish National Gallery to Michael T. Tracy, 5 September 2019.
- <sup>177</sup> *Fifeshire Journal Newspaper*, 22 March 1867, 1.
- <sup>178</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 110.
- <sup>179</sup> Diary of the Reverend Joseph Taylor Goodsir, 6 March 1867, Goodsir Papers, Gen 299, Centre for Research Collections, Edinburgh University Library.
- <sup>180</sup> Death Record of John Goodsir, 6 March 1867, North Leith Parish Records, Statutory Deaths 692/0001 0080.
- <sup>181</sup> Letter of Sarah Acland, 8 March 1867, Goodsir Papers, Gen 304, Centre for Research Collections, Edinburgh University Library, Edinburgh, Scotland.
- <sup>182</sup> *Glasgow Evening Post Newspaper* 12 March 1867, 2.
- <sup>183</sup> Diary of the Reverend Joseph Taylor Goodsir, 1 July 1867, Goodsir Papers, Gen 299, Centre for Research Collections, Edinburgh University Library.
- <sup>184</sup> "Model Anatomy." Royal College of Surgeons of England. Accessed at: [rcseng.ac.uk/museums-and-archives/hunterian-museum/pastexhibitions/model-anatomy](https://rcseng.ac.uk/museums-and-archives/hunterian-museum/pastexhibitions/model-anatomy).
- <sup>185</sup> Banks, William Mitchell, Sir. *Introductory Address to the Anatomical Society of the University of Liverpool, Delivered, 15 January 1904* (Liverpool: C. Tinling and Company, 1904), 8.

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- <sup>186</sup> Knox, Frederick, John. *The Anatomist's Instructor and Museum Companion: being practical Directions for the Formation and subsequent Management of Anatomical Museums* (Edinburgh: Adam and Charles Black, 1836).
- <sup>187</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 27.
- <sup>188</sup> Banks, William Mitchell, Sir. *Introductory Address to the Anatomical Society of the University of Liverpool, Delivered, 15 January 1904* (Liverpool: C. Tinling and Company, 1904), 8.
- <sup>189</sup> Syme, James. "Surgical Cases and Observations External Aneurism of the internal carotid Artery" *London and Edinburgh Monthly Journal of Medical Science*, 2, 11 (November 1842): 962.
- <sup>190</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 129.
- <sup>191</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 131.
- <sup>192</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 135.
- <sup>193</sup> *Edinburgh Evening News*, 16 June 1876, 2.
- <sup>194</sup> *Greenock Advertiser Newspaper*, 12 Jun 1878, 2.
- <sup>195</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 34.
- <sup>196</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 143.
- <sup>197</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 143.
- <sup>198</sup> Goodsir, John. "On The Dignity of the Human Body." In Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 207-285.
- <sup>199</sup> Henry Acland (1815-1900) was an English physician and Regius Professor of Medicine at Oxford University as well as Curator of the Bodleian Library, one of the oldest libraries in the world.
- <sup>200</sup> William Pulteney Alison (1790-1859) was a Scottish physician, social reformer, and philanthropist who was the University of Edinburgh's Professor of Medicine.
- <sup>201</sup> Atlay, J. B. *Sir Henry Wentworth Acland, Bart., K.C.B., F.R.S., Regius Professor of Medicine in the University of Oxford: A Memoir* (London: Smith, Elder and Company, 1903), 108.
- <sup>202</sup> Atlay, J. B. *Sir Henry Wentworth Acland, Bart., K.C.B., F.R.S., Regius Professor of Medicine in the University of Oxford: A Memoir* (London: Smith, Elder and Company, 1903), 108.
- <sup>203</sup> Atlay, J. B. *Sir Henry Wentworth Acland, Bart., K.C.B., F.R.S., Regius Professor of Medicine in the University of Oxford: A Memoir* (London: Smith, Elder and Company, 1903), 108-109.
- <sup>204</sup> Matriculation Roll of Henry Acland, 1843-1845, Reference Number: EUA IN1 ADS STA 2, Centre for Research Collections, Edinburgh University.
- <sup>205</sup> Atlay, J. B. *Sir Henry Wentworth Acland, Bart., K.C.B., F.R.S., Regius Professor of Medicine in the University of Oxford: A Memoir* (London: Smith, Elder and Company, 1903), 117.
- <sup>206</sup> John Goodsir was appointed as Curator of the Anatomical Museum on 9 December 1845. (Anatomy Museum Minute Book for 1840-1845, Reference Number: EUA IN1/ACU/A2/23/2, Centre for Research Collections, Edinburgh University).
- <sup>207</sup> Atlay, J. B. *Sir Henry Wentworth Acland, Bart., K.C.B., F.R.S., Regius Professor of Medicine in the University of Oxford: A Memoir* (London: Smith, Elder and Company, 1903), 125.
- <sup>208</sup> Atlay, J. B. *Sir Henry Wentworth Acland, Bart., K.C.B., F.R.S., Regius Professor of Medicine in the University of Oxford: A Memoir* (London: Smith, Elder and Company, 1903), 125.
- <sup>209</sup> Charles Bell (1774-1842) was a Scottish surgeon, anatomist, physiologist, neurologist, and artist.
- <sup>210</sup> Goodsir, John. "On the Structure of the Intestinal Villi In Man and certain of the Mammalia, with some observations on Digestion and the Absorption of Chyle," *The Edinburgh New Philosophical Journal, April-October 1842, Volume XXXIII* (Edinburgh: Adam and Charles Black, 1842), 165.
- <sup>211</sup> Bell, Charles. *Essays On The Anatomy In Painting* (London: Longman, Hurst, Rees, and Orme, 1806): 2-3.
- <sup>212</sup> Bell, Charles. *Essays On The Anatomy In Painting* (London: Longman, Hurst, Rees, and Orme, 1806): 5-6.
- <sup>213</sup> *Sheffield Independent Newspaper*, 8 February 1862, 11.
- <sup>214</sup> *Cumberland and Westmoreland Herald Newspaper*, 14 February 1880, 4.
- <sup>215</sup> *Southern Reporter Newspaper*, 22 November 1894, 3.

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- <sup>216</sup> *The Post Office Annual Directory And Calendar For 1844-45* (Edinburgh: Ballantyne and Hughes, 1844), 82.
- <sup>217</sup> Christine Borland is the contemporary British sculptor who re-discovered “From Nature.” David MacKenzie (1805-1864). In 1851, David MacKenzie was advertising himself as a maker of veterinary implements and makes reference to the patronage he has enjoyed over his sixteen years in business and by 1853, he is listed as a surgical instrument maker in advertisements he placed in *The Scotsman Newspaper*. His business appears to have been carried on by his son, David, Jr., after he died in 1864.
- <sup>218</sup> Atlay, J. B. *Sir Henry Wentworth Acland, Bart., K.C.B., F.R.S., Regius Professor of Medicine in the University of Oxford: A Memoir* (London: Smith, Elder and Company, 1903), 125.
- <sup>219</sup> *Exeter Flying Post Newspaper*, 20 March 1845, 2.
- <sup>220</sup> Manuscript copy of Acland’s Inaugural lecture as Reader of Anatomy, ‘The Bodily Nature of Man’ delivered 23 October 1845, Bodleian Libraries, Shelfmark M.S. Acland e.1, Oxford.
- <sup>221</sup> *Testimonial In Favour Of John Goodsir, F.R.S.E.: Candidate For The Chair Of Anatomy In The University Of Edinburgh* (Edinburgh: W. MacPhail, 1846), 130.
- <sup>222</sup> *Synopsis Of The Physiological Series In The Christ Church Museum* (Oxford: James Wright, Printer to the University, 1853): 1.
- <sup>223</sup> William Turner (1832-1916) was an English anatomist serving as John Goodsir’s Demonstrator and later was the Principal of the University of Edinburgh from 1903 to 1916.
- <sup>224</sup> Charles Robertson (1835-1907) was a native of Fifeshire, and at the age of twelve was brought to Oxford by Henry Acland, who, as Lee’s Reader was then studying under John Goodsir. His brother, Alexander was the servant to John Goodsir. Employed by Acland in the Anatomical Department in Christ Church, Charles (Charlie) Robertson was engaged for the next twelve years as preparing specimens which ultimately formed the nucleus of the Hunterian Collection in the University Museum. In 1860, Robertson was appointed Aldrichian Demonstrator of Anatomy until 1891, when he took up the position of Museum Assistant in the department of Human Anatomy until only a few months before his death, which took place on 9 October 1907. (*The Oxford Magazine*, Volume XXVI (24 October 1907): 19).
- <sup>225</sup> Atlay, J. B. *Sir Henry Wentworth Acland, Bart., K.C.B., F.R.S., Regius Professor of Medicine in the University of Oxford: A Memoir* (London: Smith, Elder and Company, 1903), 478.
- <sup>226</sup> “The Oxford Medical School” *British Medical Journal*, 23 June 1906, 1486.
- <sup>227</sup> Richardson, Craig; Borland, Christine, Talking about a Christine Borland sculpture: effective empathy in contemporary anatomy art (and an emerging counterpart in medical training?) *Journal of Visual Art Practice* (July 2015).
- <sup>228</sup> Richardson, Craig; Borland, Christine, Talking about a Christine Borland sculpture: effective empathy in contemporary anatomy art (and an emerging counterpart in medical training?) *Journal of Visual Art Practice* (July 2015).
- <sup>229</sup> Richardson, Craig; Borland, Christine, Talking about a Christine Borland sculpture: effective empathy in contemporary anatomy art (and an emerging counterpart in medical training?) *Journal of Visual Art Practice* (July 2015).
- <sup>230</sup> *The Athenaeum*, 25 November 1854, 1431-1432.
- <sup>231</sup> Bennett, John Hughes. *Memoir of the late Professor Edward Forbes* (Edinburgh: Sutherland and Knox, 1855), 22.
- <sup>232</sup> Dobell, Sydney. *Poems by Sydney Dobell* (Boston: Ticknor and Fields, 1860), 186.
- <sup>233</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 194.
- <sup>234</sup> Turner, William (ed.) and Lonsdale, Henry (contrib.) *The Anatomical Memoirs Of John Goodsir, F.R.S., Late Professor Of Anatomy In The University Of Edinburgh* (Edinburgh: Adam and Charles Black, 1868), 194.