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HISTORICAL REVIEW*

Anatomy and Academies of Art II

A Tale of Two Cities

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ABSTRACT

Anatomy played a significant role in the establishment of academies in art, initially in Italy and France, and then more widely in Europe and the Americas. This paper considers the role of anatomy in two such academies, the Royal Academy of Arts in London, and the Royal Hibernian Academy of Arts in Dublin. In both cases, anatomy teaching for art students was formalised by the appointment of a Professor of Anatomy, positions which continue to this day. The first Professor of Anatomy in the RA, William Hunter, set the standard by delivering lectures, carrying out dissections and producing *écorchés*. Some of his successors have published anatomy books specifically for artists, but their enthusiasm has varied. Unlike the continuity of the RA, the RHA has only had bespoke premises from 1826-1916 and from 1985 onwards and its Schools, or School, have operated from 1826-1942, and from 2008 onwards. Anatomy teaching was a casualty of the decline of the formal art academy in the twentieth century, but the fortunes of both are reviving in the early 21st century.

Keywords
Academy, anatomy, antique, art, dissection, *écorché*, life school

Introduction

As described in the preceding paper, anatomy played a significant role in the founding of academies of art in Europe and the Americas from the sixteenth to the nineteenth centuries. Anatomy informed artistic content and, as a liberal art taught by university-educated men, helped to raise the status of artisans to artists. The first academy of art was founded in Florence in 1563, and the French academy, founded in 1648, established the curriculum of 'drawing from drawings, drawing from casts, drawing from the living model' (Pevsner, 1940). This paper considers anatomy in two such academies, the Royal Academy of Arts in London, founded in 1768, and the Royal Hibernian Academy of Arts in Dublin, founded in 1823.

London

The Royal Academy's Instrument of Foundation was granted by King George III in his personal capacity and so prevented any other body, including the government of the day, from interfering in its affairs (Simon and Stevens, 2018). The Crown provided accommodation, first in Pall Mall, then in Old Somerset House, New Somerset House, Trafalgar Square and, since 1867, in Burlington House, where it has a 999-year lease with an annual rent of £1. Income was generated by the Annual Exhibition, and when this failed, from George III's Privy Purse. On this funding model, free tuition was offered in the Schools, which inherited much of their equipment, including anatomical figures, from the earlier St Martin's Lane Academy. Successive buildings provided teaching space for lectures, drawing from casts and life drawing. There was no dedicated space for anatomy teaching *per se*, but the Life School could have been used for dissections,

although a government licence would have been required to do so following the Anatomy Act of 1832.

Dublin

The Royal Hibernian Academy received no such official *largesse*. It could not even pay the registration fee for its Royal Charter from George III, and had to be bailed out by the Royal Irish Institution (Turpin, 2018). It was granted no accommodation, and when its Annual Exhibition failed to raise sufficient income, funds were not forthcoming from the Privy Purse. The generosity of the second President of the RHA, Francis Johnston, enabled Academy House to be built in 1826, and a Life School was established the same year (Strickland, 1989). The top-lit exhibition galleries were used as teaching studios when not required for the Annual Exhibition. The opening of the Sculpture Gallery in 1830 provided more space and, with the provision of an annual grant of £300 from Parliament in 1832, an Antique School was added, where drawings were made of plaster casts of classical statues (RHA, 2017). A dedicated space for the Schools was finally provided in 1878 when the President, Sir Thomas Jones, paid for a mezzanine floor to be constructed in the Sculpture Gallery, with a drawing school above and an exhibition space below. All of this was destroyed by the fire of 1916, with the Academy and Schools finding temporary accommodation in Lincoln Place, St Stephen's Green and Ely Place, before the Schools closed in 1942 (Fig. 1). The new building in Ely Place, refurbished in 2008, enabled the re-opening of the School (singular) the same year (Fig. 2). The new School provides a studio-based educational facility and Common Room/Library, and its programme includes lectures, masterclasses and workshops.

Royal Academy Professors of Anatomy

Anatomy was regarded with considerable respect at the RA: clause ten of the Instrument of Foundation placed the Professor of Anatomy first amongst equals at the RA, with an annual salary of £30 (Cunningham, 2010). In contrast, the Paris Académie clearly took a poor view of the importance of the subject, ranking the anatomist last in precedence of the fifty-four professors. There have been fourteen RA Professors of Anatomy to date (Table 1).

Table 1. Professors of Anatomy at the Royal Academy

William Hunter	1768-1783
John Sheldon	1783-1808
Sir Anthony Carlisle	1808-1824
Joseph Henry Green	1825-1851
Richard Partridge	1852-1873
John Marshall	1873-1891
William Anderson	1891-1900
Arthur Thomson*	1900-1934
Alexander Macphail	1934-1938
Arthur Beeny Appleton*	1938-1950
James Dixon Boyd*	1950-1956
William Hamilton*	1956-1975
Gerald Libby	1975-2019
Roger Kneebone	2019-

*President of the Anatomical Society of Great Britain & Ireland

William Hunter, physician-in-extraordinary to Queen Charlotte, owned his own anatomy school in Great Windmill Street. He was appointed Professor of Anatomy on 17th December 1768, one week after the King had signed the Instrument of Foundation of the Royal Academy (Kemp, 1975). His was a privileged position. In February 1769, he was exempted from the rule that all professors must submit their lectures to the Secretary for prior approval, and in December of that year, Council resolved 'that Dr. Wm. Hunter, (as Anatomy Professor) have free access to all General Assemblys' (Council Minutes, 1769). He is prominent in two of Johann Zoffany's group portraits – *Dr William Hunter teaching Anatomy at the Royal Academy* (Fig. 3) and *The Academicians of the Royal Academy* (1771-2). In the latter, he is centre canvas, standing next to the President, Sir Joshua Reynolds. In the former, he is centre stage, delivering his lecture to an audience, which includes Reynolds.

The Council minutes of 17th March 1769 record:

> Dr. Hunter, being present, proposed to give three lectures on the Skeleton and that the first lecture should be on the fourth Monday in October next, to begin at One o'clock and end at two. The other lectures on the muscles to be at such times as a body can be procured from the Sherriffs to whom he recommended that application be made.

The lectures took place as planned and the January 1770 minutes record an 'application to the Master of the Surgeons Company for a Body to be dissected in the Royal Academy by Dr. Hunter' while those of March note the Secretary wishing to reimburse 'the Expenses of the Body' to Dr Hunter (Council Minutes, 1770).

Martin Kemp has compiled Hunter's notes on his lectures, 1769-1772 – three on the bones and three on the muscles – noting that he added a 'grand introduction on the aims of the artist' in 1770 (Kemp, 1975). Hunter compares the body to a 'machine', the bones and muscles, 'covered all over with a quilt' of skin and fat and 'that it would be of great advantage to the artist to have the covering removed' (Kemp, 1975). Prominent intellectuals, including Edmund Burke, Adam Smith, Tobias Smollett and Edward Gibbon attended his lectures, as anatomy was then at the forefront of scientific discovery (McCormack, 2018).

Hunter's successor was John Sheldon, who had been his pupil, and had set up his own school of anatomy in Great Queen Street. However, from 1788 onwards, ill health made his attendance infrequent for the remaining 20 years of his tenure. In Sheldon's absence, both colleagues and students looked elsewhere for anatomical advice. The President, Benjamin West, turned to surgeon John Carpue and Professor of Sculpture John Flaxman for help in creating a crucifixion *écorché*, while students Benjamin Robert Haydon, John Constable, David Wilkie and Andrew Robertson attended Joshua Brookes FRS for anatomy teaching.

Worse was to follow with the appointment of the third Professor of Anatomy. The obvious candidate was Sir Charles Bell, who had taught with Hunter, published his own illustrations in a *System of Dissections* in 1798 and 1799*,* helped his brother John complete a four-volume work called *The Anatomy of the Human Body* in 1803, and published *The Anatomy of Expression in Painting* in 1806. However, the Academy opted for Sir Anthony Carlisle (DNB, 2004; Gibson,1841). Carlisle's lectures to the Royal Society had been on the muscles of fish, and he publicly questioned the relevance of

anatomical study for artists (DNB, 2004; Simon & Stevens, 2018). Neither Sheldon nor Carlisle, nor their immediate successors Joseph Green and Richard Partridge, made lasting contributions to anatomy, but their students did. Carlisle's student, James Birch Sharpe, published *Elements of Anatomy Designed for the Use of Students in Fine Arts* in 1818, attacking Carlisle in all but name, ascribing his objections to dissection as either affectation or indolence (Sharpe, 1818). In 1833, during Green's tenure, Sheldon's (and Brookes's) former student, Andrew Robertson, provided the notes to accompany sculptor John Flaxman's sketches, published as *Anatomical Studies of the Bones and Muscles for the Use of Artists*.

Subsequent holders of the post were more appropriate. Prior to his appointment as Professor, John Marshall had published textbooks on human structure and function for schoolboys and medical students. His *magnum opus* was *Anatomy for Artists*, which ran to three editions from 1873 to 1890. The main problems with the book, and by inference the material taught in the Academy, are the systems approach taken, the level of unnecessary detail and the lack of surface anatomy. Marshall was succeeded by William Anderson who identified the problem –'whereas written words convey their meaning slowly and imperfectly, the diagram, the more highly-finished drawing, the photograph, and the model, speak with strength and clarity' (Anderson, 1886). His successor, Arthur Thomson, put this into practice. *A Handbook of Anatomy for Artists* (1915) avoided jargon, used the vernacular, approached anatomy regionally, emphasising surface anatomy and how it alters with movement. Its author's artistic talents provided relevant drawings and, above all, it used photography, which had not

yet appeared in mainstream medical anatomy texts. The book was very successful and remains in print, and none of his successors has attempted to supplant it.

Sadly, Thompson's outstanding contribution was exceptional. His successor Macphail's main role was as HM Inspector of Anatomy, Appleton and Hamilton collaborated on a text on *Surface and Radiological Anatomy for Students and Medical Practitioners* (1938) which had little application for artists, and Dixon Boyd was an embryologist. Their tenures, from 1934, onwards coincided with the decline of the academy system in general, and of anatomy in particular. Libby noted that he was the first non-anatomist in the post, began with enthusiasm but ended with anatomy accessed on-line (Libby, 2019).

Royal Hibernian Academy Professors of Anatomy

The catalogue for the first exhibition in 1826 included a brief history of the RHA, its objectives and constitution, and described the role of its Professors:

> There are moreover Professors, for the purpose of instructing those who may be Students of the Academy, by means of public lectures. Of these Professors, some are to lecture on subjects strictly professional; - such are the Professors of Painting, of Sculpture and of Architecture. Others are to treat on Subjects either scientific, or connected with Polite Literature. Of the former are Professors of Mathematics and of Anatomy. Of the latter are the Professors of History and of Antiquities (RHA, 1826).

Unlike their counterparts in London, all ten Professors of Anatomy (Table 2) have been elected Honorary Members of the Academy.

Table 2. Professors of Anatomy at the Royal Hibernian Academy

Andrew Johnston	1826-1833
James McCartney	1834-1842
Michael Harry Stapleton	1844-1873
Sir Charles Cameron	1873
Sir William Thornley Stoker	1874-1912
Oliver St John Gogarty	1912-1957
Thomas G. Wilson	1962-1969
Brendan O'Brien	1973-1984
Cecil Erskine	1988-2007
Clive Lee*	2007-

*President of the Anatomical Society

As was the case with the Royal Academy, an obstetrician, Andrew Johnston, was the first Professor of Anatomy in the Royal Hibernian Academy. Like Hunter, Johnston was well connected, being the elder brother of the RHA President, Francis, and was himself a former President of the Royal College of Surgeons in Ireland. His appointment coincided with the opening of Academy House and the Schools but, apart from his donation of anatomy books to the library, including Flaxman's *Anatomical Studies*, we know nothing of his tenure, as most of the RHA records were burned in the fire that destroyed Academy House in 1916 (Turpin, 2018). James Macartney, appointed in

1834, sold his anatomical collection in 1836 and resigned from his chair in Trinity College, Dublin the following year (DIB, 2009). This deprived him of both aids and premises for anatomy teaching and, apart from a donation of antique casts, no other record survives, nor of his successors, Stapleton and Cameron.

Sir William Thornley Stoker was both President of the Royal College of Surgeons in Ireland and its Professor of Descriptive Anatomy during his 37-year tenure at the RHA (Fig. 4). Brother of the author of *Dracula*, Bram Stoker, he had access to RCSI's dissecting room and may have used it for informal teaching of art students (Stiles, 2013). The Department of Science and Art Report of 1877 notes that he lectured on anatomy in the Academy in 1875-76, but this proved to be short-lived. Sir Charles Cameron, who had become Professor of Chemistry, suggested that the reason was that 'whenever you have persons giving lectures for nothing, their zeal dies after a short space of time' (Cameron, 1906). In contrast, the RA's Instrument of Foundation set a Professor's salary at £30 per year for six public lectures. Adjusting for inflation, this 1768 figure is the equivalent of more than £5,000 (€5,800) today (Office for National Statistics, 2019).

Oliver St John Gogarty, while medically qualified and a surgeon, had no formal academic role in a medical school, nor is there a record of him teaching anatomy. He famously quipped that the Royal Hibernian Academy was a treble contradiction in terms, but briefly accommodated the RHA in his house in Ely Place in 1920-21, before selling it to the Academy in 1938 (O'Connor, 1981). His limerick about another academy is more flippant:

On being elected to the Irish Academy of Letters

There was a kind poet called Yeats
Who put me with those whom he rates -
Don't think it bad of me -
In his Academy;
Off which of our heads are the slates? (Jeffares, 2001)

TG Wilson was a surgeon, Brendan O'Brien, a physician, and Cecil Erskine, University Professor of Anatomy and Chirurgery and Professor of Human Anatomy and Embryology at Trinity College, Dublin. All had retired when appointed Professor of Anatomy in the RHA, and the Schools were closed throughout their tenure. The re-opening of the Academy School coincided with my own appointment. I collaborated with RHA artists to develop an on-line teaching tool for anatomy and contribute to the Foundation in Drawing Courses, team-teaching in the RCSI Anatomy Room with Una Sealy RHA (Morris et al, 2016).

Methods of Teaching in the Academy Schools

Dissection

In Great Britain and Ireland, the supply of bodies for medical schools had traditionally come from the gallows, with dissection an additional punishment after death. To these were added those stolen from their graves by the 'resurrectionists'. Dominic, later Sir Dominic, Corrigan (1802-1880), best remembered for his description of the collapsing

pulse in aortic incompetence, was a medical student in Dublin and wrote the following account of his experience as a grave robber:

> We moved with our hands the recently deposited clay and stones which covered the head and shoulders of the coffin – no more was uncovered; then a rope about three or four feet long was let down, and the grapple, an iron hook with the end flattened out attached to the rope, was inserted under the edge of the coffin-lid. The student then pulled on the rope until the lid of the coffin cracked across. The other end of the rope was now inserted around the neck of the dead, and the whole body was then drawn upwards and carried across the churchyard to some convenient situation…awaiting the car that was to convey it to some dissecting theatre (Corrigan, 1879).

In Edinburgh, William Burke and William Hare, began to source bodies while still alive, suffocating them and selling the corpses to the anatomist Robert Knox for £7 each (Porter, 1999). By the time their scheme was uncovered, sixteen murders had been committed. Hare turned King's evidence, and Burke was hanged, his body publicly flayed and anatomized; his skeleton is now on display in the Anatomy Museum of the University of Edinburgh. The 1832 Anatomy Act was passed giving the medical profession rights to 'unclaimed bodies', mainly paupers without family who died in hospitals and workhouses (Porter, 1999).

Dissection was both smelly and dangerous, with anatomists such as John Shekleton dying of infection contracted from the corpse (Widdess, 1984). It was not until 1867, and

the discoveries of antisepsis by Lister, and formaldehyde by von Hofmann, that dissection became safe (Porter, 1999). Given these challenges, it is not surprising that academies of art did not incorporate dissecting rooms into their buildings. It was preferable for the Professor of Anatomy to bring the students to his medical school. By looking and seeing the body as its coverings were removed, layer by layer, in a systematic manner, the artist could understand its construction in three dimensions, and the relative positions of the parts. Feeling the tissues, even if embalmed, provided touch and proprioceptive (or haptic) information.

Écorchés

An alternative approach to three-dimensional anatomy was an *écorché*, and two different approaches were used in the Royal Academy. *Écorchés* are plaster casts taken from a cadaver after the skin and subcutaneous tissue have been removed. A student, James Northcote, wrote to his brother in 1771:

> I suppose you have seen accounts upon the newspapers of the Jews which were hung for robbing a house and murdering a servant man in it. We had the body of one of them at the Academy for Dr Hunter to read his lectures on…We had two lectures on it because they might have the body fresh to cast a plaster anatomical figure…placed in the Academy to be drawn from (RA Archives, 1771).

This polychrome *écorché* is the one depicted in Zoffany's 1770 painting of Hunter (Fig. 3) and remains in the RA today (Postle 2004). In Hunter's *écorché*, the cast was taken with the muscles in *rigor mortis*, which begins approximately four hours after death, peaks at 13 hours and lasts up to 36 hours. The chemical changes in muscle tissue

vary with an individual's age, sex, physical condition and muscle mass and with environmental temperature. The surface appearance is of muscle contraction – but in the manner of a body builder, where every muscle contracts *at the same time*. Normally, muscles work in concert, or synergistically, e.g. with biceps brachii on the anterior surface of the arm acting as a prime mover (agonist) contracting to flex the elbow, and triceps brachii on the posterior surface (antagonist) relaxing to permit flexion to occur. The two muscles swop roles to extend the elbow.

In the case of the crucifixion *écorché*, the cast was taken during the period of primary flaccidity, before *rigor mortis* had set in. The President of the Academy, Benjamin West, painter Richard Cosway RA and sculptor Thomas Banks RA, believed that most portrayals of the Crucifixion were anatomically incorrect, and, together with surgeon Joseph Constantine Carpue FRCS, FRS, of St George's Hospital, devised an experiment to test their hypothesis. An elderly Irishman, James Legg, convicted of murdering a fellow Chelsea Pensioner, was sentenced to death, with the judge specifying that his body was to be dissected. According to Carpue's obituary:

> a building was erected near the place of his execution; a cross provided. The subject was nailed on the cross; the cross suspended…the body, being warm, fell into the position that a dead body must fall into…When cool, a cast was made, under the direction of Mr Banks, and when the mob was dispersed it was removed to my theatre (Anonymous, 1846).

At his theatre, Carpue flayed the cadaver and Banks made a second *écorché* cast. The gravitational effects of crucifixion caused elongation of the body, with elevation of the chest wall and depression of the lower abdomen and trauma to the hands. The

Academicians concluded that most artists had *not* realistically depicted the Crucifixion in their work (Bignamini and Postle, 1991). The casts generated great public interest when displayed in Banks's studio. While the first has been lost, the second *écorché* cast was subsequently displayed in the Life Room of the Schools, and is now on display in The Vaults of the remodelled Royal Academy (Fig. 5).

Hunter's *écorchés* show all the muscles contracted in *rigor mortis*, while the crucifixion *écorché* shows all the muscles relaxed. These *écorchés,* therefore, depict the extremes of muscle activity, all or nothing, whereas the norm in the conscious living body is synergism, with some muscles contracted and others relaxed.

Antique School

Drawing from casts of antique statues was the first class in the Academy School. Plaster casts were taken from Greek and Roman statues, the latter often copies of Greek originals, and displayed in the RA's Academy of the Antique in New Somerset House (Fig. 6), the Hall of Casts in Trafalgar Square or the Cast Corridor and The Vaults in Burlington House. Casts were frequently presented to the RHA by dignitaries, such as the Viceroy, or the Professor of Anatomy – James Macartney donated casts of *Psyche*, *Flora* and *Venus of the Campidoglio* for use in the Antique School (RHA, 1837). The casts were three-dimensional, and so could be depicted from a variety of angles with areas of light and shade, and fixed, so the accuracy of the drawing could be easily assessed.

Life School

Drawing from a live model created a number of challenges for the Academy Schools. The presence of a male nude, particularly important in history painting, precluded the presence of women. Hence, in Zoffany's *The Academicians of the Royal Academy* (1771-2), academicians Angelica Kauffman and Mary Moser, absent from the life class, are depicted as portraits on the wall. Female students were admitted in London in 1860 and in Dublin in 1894 (Simon and Stevens, 2018; Turpin, 2018).

A second challenge was muscle activity. Hunter had noted that 'every change of Face, is no other than varied muscle motion' (Kemp, 1975). Variation in the contraction of *levator labii superioris alaeque nasi*, the elevator of the upper lip and the nose, turns a smile into a sneer. Robertson considered his anatomical studies 'the most useful thing, in drawing from life, for action is so momentary' (Bignamini and Postle, 1991). Green noted that 'the human arm in repose, naturally adopts some curve…the same arm called into act…becomes straight as the sword with which it prolongs itself' (Green, 1843). Leonardo da Vinci had seen anatomical knowledge as the solution to the problem 'the painter who has a knowledge of the sinews, muscles and tendons…will…indicate the various muscles by means of the different attitudes of his figures' (Da Vinci, 2008).

In Zoffany's painting *The Academicians of the Royal Academy* (1771-2), the model is shown 'being set' by George Michael Moser, keeper of the Royal Academy Schools and father of Mary (Fenton, 2006). By suspending the model's hand with a noose tied to the ceiling, the arm could be raised for long periods, and the pose reset over several weeks. This artificial approach prevented normal muscular activity, and so both the model, and

depictions of him, were unnatural. The combination of drawing from casts and from models in long-term poses, led to the development of an unnatural, uniform style. With:

> …one month for the same drawing – a time of constant reworking and 'finishing', certain forms evidently were routinely accentuated as being important in their own right, which is to say that they were dictated by a taste for the graceful and elegant. In question was not what could be observed in nature or how nature could be 'improved' upon by applying lessons learned from the antique, but rather, and quite strictly, the academy's notion of the 'artistic' (Goldstein, 1996).

This may account for the development of the academy style with its conceptual and technical uniformity. With up to a month to observe, draw and paint, fleeting muscle action is lost, along with spontaneity and individuality, and the student learns to conform to the academy norm - the real was sacrificed for the ideal. It took a long time, but such dull uniformity contributed to the rejection of the academy system in the early twentieth century. Student sit-ins, and the smashing of nineteen plaster casts, including *Discobolus* and the *Venus de Milo*, at the National College of Art in Dublin in 1969 marked the end of an era (Turpin, 1995). In the new RHA School, poses in the *Foundation Drawing* life class last thirty minutes.

A further problem, identified by RA student Benjamin Robert Haydon, was which to believe when the antique cast and the life model were found to differ. Martin Postle has written that 'the role of anatomy in artistic education was a highly divisive issue and one which polarised radical and conservative elements in British artistic circles' with the conservatives valuing the antique over anatomical observation. In fact, many of the

casts were from Roman copies of Greek statues, or casts from earlier casts, which allowed inaccuracies to accumulate. The arrival in London of the Elgin marbles in 1808 revealed that the ‘figures from the Parthenon were far closer to the living model than any antique statuary hitherto discovered’ (Bignamini and Postle, 1991).

Examination of the evidence is problematic as variation can be introduced at each stage in the sequence from original model to sculpture to cast or casts and comparison with a live model. The South marble metopes from the Parthenon, currently in the British Museum, depict the battle between the Lapiths, men from Thessaly, and the mythical Centaurs. Assuming that the sculptor was Phidias, and that he based his depiction on a live model, the process of sculpting marble with the tools available in 447-438 BCE would have been time-consuming and so the image created would have been a summation or averaging of what the artist observed, with choices made as to what to include or omit. Furthermore, we do not know if he made drawings or preliminary studies on which the final work was based. Any cast taken of the sculpture could have introduced inaccuracies, and casts of casts would exacerbate this problem. Finally, comparison with a live model would include his state of muscular development and contraction at the time of observation. Thanks to the British Museum website, we can directly compare the original sculpture of the Lapith (Fig. 7) with Haydon’s sketch of it, dated 1809, when it was in Lord Elgin’s house in Park Lane, London (Fig. 8). Ultimately, it was a matter of attitude whether one was to accept what was visible in the statue or cast - the antique ideal - or what was visible in the life model - anatomical reality.

A final concern for the life school has been the propriety of using nude female models, not permitted in Dublin until 1834 (Turpin, 2018). In London, the initial concern was for

the male students who might be ‘lured into a course of dissipation and ruined’ but by the 1880s, they worried that the model was being degraded and exploited (Fig. 9). The practice was defended by GF Watts RA: ‘If the human form is not to be studied, painted and sculptured there will be an end to art. Prudery is one of the worst forms of indecency’ (Simon and Stevens, 2018).

Library

The Library of the RHA perished in the flames of 1916, including the anatomy books donated by Andrew Johnston, and the current collection of books is uncatalogued. The current RA library catalogue lists eighty-six texts on anatomy, including those published by its Professors of Anatomy as well as a wider range of authors from Albinus, via Henry Gray and Tortebat, to Vesalius and Sir Christopher Wren. Among these is William Cheselden’s *Osteographia* of 1733, which depicts the author using a *camera obscura*, in which the image of a skeleton is projected onto a flat surface by a convex lens in an aperture. The outline of the image is drawn directly on the surface, so giving an accurate representation of the skeleton. Using this tool, or a *camera lucida*, anatomical drawings, portraits and views of Venice or Delft could be produced using glass lenses (Hockney, 2006). In addition to books, collections of drawings, engravings and prints provided additional anatomical information to students and academicians.

New Media

In 1838, Louis Daguerre introduced a new medium when he took the first photograph of a living person.[1] Its acceptance as art has been slow, with Amelia Stein being the first photographer elected to membership of the RHA in 2004. Arthur Thompson used photography in *A Handbook of Anatomy for Artists* (1915) and, while photographs are included in modern anatomy textbooks, they are specific, whereas drawings represent the general case and are still more widely used (Drake, Vogel and Mitchell, 2014). Photography is a double-edged sword and its associations with pornography have been problematic, not least in the case of anatomist Thomas Eakins who was forced to resign from the Philadelphia Academy in 1886 (Werbel, 2007). Touch screens are used by David Hockney RA, and he has produced landscapes and portraits using both iPad and iPhone. Computer-based media may have contributed to the decline of anatomy teaching in the Royal Academy, but in Dublin, the collaboration of artists, anatomists and engineers, has produced a surface anatomy teaching aid which is a valuable adjunct to the *Foundation Drawing* course.

Conclusion

Anatomy added academic *gravitas* to the arguments of those advocating the foundation of academies of art. Funds were secured, premises built and schools established with university-educated Professors of Anatomy engaged to teach anatomy to art students. Anatomy helped the guild to become an academy and elevated the artisan to the level

[1] *Boulevard du Temple*, Paris, 1838, by Louis Daguerre, had an exposure time of 10 minutes and shows a man who was having his boots polished, another sitting on a bench and a third standing under an awning. All were stationary for long enough to appear on the image, unlike the traffic on the busy street.

of artist. Internal anatomy has been taught using skeletons, dissection and *écorchés*, while external, or surface, anatomy used casts of, or original, antique statues, and life models. Teaching has been supported by textbooks and drawings in academy libraries, and more recently, by photographs, video and web-based media. As in all institutions, and educational ones in particular, there has been a difference between what they have intended to do, and what has actually taken place – the dichotomy between theory and practice.

Anatomy has also proved divisive and 'polarised radical and conservative elements in British artistic circles' (Bignamini and Postle, 1991). While a reaction against academy teaching began in the 19th century, radical reforms took hold in the 20th century, with anatomy teaching a notable casualty (Goldstein, 1996). Anatomy is undergoing a limited revival in the early part of the 21st century, evident in both the RA and the RHA, as well as in the American and Russian Academies in Florence. The challenge for the future is to develop a bespoke course in which artists can learn relevant anatomy in an efficient timeframe and at a reasonable cost, combining new technology with the best of traditional teaching methods.

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REFERENCES

Anderson W (1886) An outline of the history of art in relation to medical science. *St Thomas's Hospital Reports* **15**:151-181.

Anonymous (1846) Obituary, Joseph Constantine Carpue. **Lancet 1**: 166.

Bignamini I, Postle M (1991) *The Artist's Model. Its Role in British Art from Lely to Etty*. Nottingham.

Cameron C (1906) *Report by the Committee of Inquiry into the Work Carried on by the Royal Hibernian Academy and the Metropolitan School of Art, Dublin*. Dublin: HMSO.

Corrigan D (1879) Reminiscences of a medical student prior to the passing of the Anatomy Act. *BMJ* **Jan 11***:* 59-60.

Cunningham A (2010) *The Anatomist Anatomis'd. An Experimental Discipline in Enlightenment Europe.* Farnham: Ashgate Publishing.

Da Vinci L (2008) *Notebooks*. Oxford: University Press.

Dictionary of National Biography (2004) Oxford: University Press.

Dictionary of Irish Biography (2009) Cambridge: University Press.

Drake RL, Vogel AW, Mitchell AWM (2013). *Gray's Anatomy for Students*. (3rd edn.) Philadelphia: Elsevier.

Fenton J (2006) *School of Genius. A History of the Royal Academy of Arts*. London: Salamander.

Flaxman J (1829) *Lectures on Sculpture*. London: J. Murray.

Gibson W (1941) *Rambles in Europe*. Philadelphia.

Goldstein C (1996) *Teaching Art*. Cambridge: University Press.

Green J (1843) The conditions of beauty in the beautiful object. *Athenaeum*: 1108.

Hockney D (2006) *Secret Knowledge. Rediscovering the Lost Techniques of the Old Masters.* London: Thames & Hudson.

Jeffares A N (2001) *The Poems and Plays of Oliver St John Gogarty*. Dublin: Colin Smythe.

Kemp M (1975) *Dr William Hunter at the Royal Academy of Arts*. Glasgow: University Press.

Libby G (2019) https://www.royalacademy.org.uk/art-artists/name/gerald-libby (accessed 29 May)

Marshall J (1890) *Anatomy for Artists* (3ed. edn.) London: John Murray.

McCormack H (2018) *William Hunter and his Eighteenth-Century Cultural Worlds. The Anatomist and the Fine Arts*. London: Routledge.

Morris VBV, Corrigan D, Sealy U, Kokaram A, O'Dea M & Lee TC. Anatomy from the outside in: a new on-line surface anatomy guide. *J Anat* **228**: 24-25, 2016.

O'Connor U (1981) *Oliver St John Gogarty.* St. Albans: Granada.

Office for National Statistics (2019) Composite price index, accessed 6 June.

Pevsner N (1940) *Academies of Art Past and Present*. Cambridge: University Press.

Porter R (1999) *The Greatest Benefit to Mankind. A Medical History of Humanity from Antiquity to the Present*. London: Fontana Press.

Postle M (2004) Flayed for art. The *Écorché* Figure in the English art academy*. Br Art J* **V (1):** 55-63.

RHA Exhibition Catalogues. Dublin; Royal Hibernian Academy, 1829-2019.

Royal Academy Archives (1771)

Royal Academy Council Minutes (1769-1770).

Sharpe JB (1881) *Elements of Anatomy Designed for the Use of Students in the Fine Arts.* London: Printed for R Hunter.

Simon R, Stevens M (eds) (2018) *The Royal academy of Arts. History and Collections.* New Haven: Yale University Press.

Stiles A (2013) Bram Stoker's brother the brain surgeon. *Prog Brain Res* **205**:197-218.

Strickland W (1989) *A Dictionary of Irish Artists, Vols. I & II*. Dublin: Irish Academic Press.

Thompson A (1915) *A Handbook of Anatomy for Artists*. Oxford: Clarendon Press.

Turpin J (1995) *A School of Art in Dublin since the Eighteenth Century*. Dublin: Gill & Macmillan.

Turpin J (2018) *History of the Royal Hibernian Academy of Arts. Vols. I & II*. Dublin: Lilliput.

Werbel A (2007) *Thomas Eakins. Art, Medicine, and Sexuality in Nineteenth-Century Philadelphia.* New Haven: Yale University Press.

Widdess JDH (1984) *The Royal College of Surgeons in Ireland and its Medical School* (3rd edn.). Dublin: RCSI.

FIGURE LEGENDS

Fig. 1. Mick O'Dea PRHA, Hon FAS, *The Academy Burning*, 2015, Oil and charcoal on linen canvas, 400 x 280 cm, Courtesy of the artist.

Fig. 2. Donal Murphy, *Royal Hibernian Academy, RHA Gallery*, 2010, Photograph, Credit: Royal Hibernian Academy.

Fig. 3. Johann Zoffany, *Dr William Hunter teaching Anatomy at the Royal Academy*, 1770, Oil on canvas, 77.4 x 103.5 cm, Royal College of Physicians of London.

Fig. 4. Louis Werner, *Portrait of Sir William Thornley Stoker*, 1899, Oil on canvas, Courtesy of the Royal College of Surgeons in Ireland.

Fig. 5. Thomas Banks RA, *Anatomical Crucifixion (James Legg*) 1801, Plaster cast, 231.5 x 141 cm. Photo credit: Royal Academy of Arts, London.

Fig. 6. Edward Francis Burney, *The Antique School at New Somerset House*, ca. 1780, pencil and ink with watercolour wash on laid paper, 33.5 x 48.5 cm. Photo credit: Royal Academy of Arts, London.

Fig. 7. Phidias, *South Metope XXVII from the Parthenon*, 447-438 BCE, Marble, 137 cm, British Museum, London.

Fig. 8. Benjamin Robert Haydon, Sketched in Park Lane, 1809, Pencil on paper, 78 x 54.9 cm, British Museum, London.

Fig. 9. Thomas Rowlandson, *A Life Class at the Royal Academy, Somerset House,* 1811, hand-coloured etching, 13.7 x 21.8 cm, Photo credit: Royal Academy of Arts, London.

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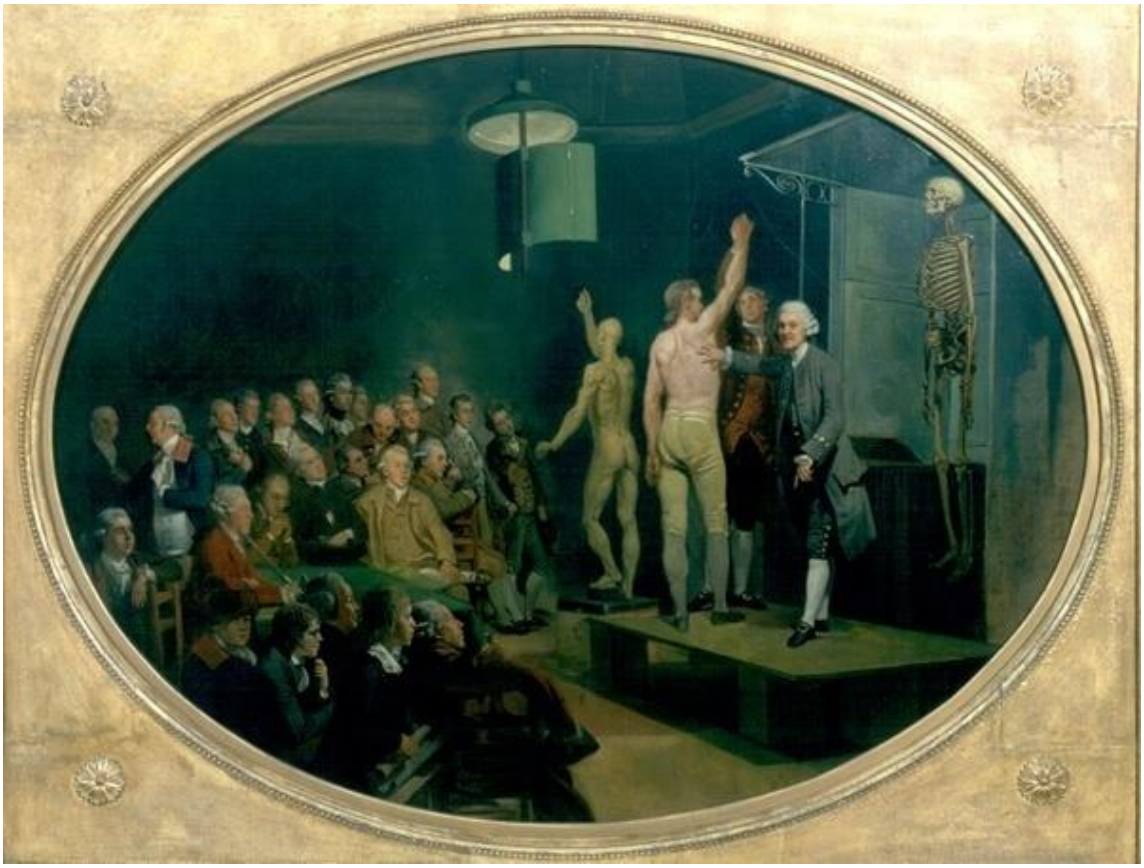
Fig. 2. RHA Gallery, exterior, 2010, Photograph, RHA website.



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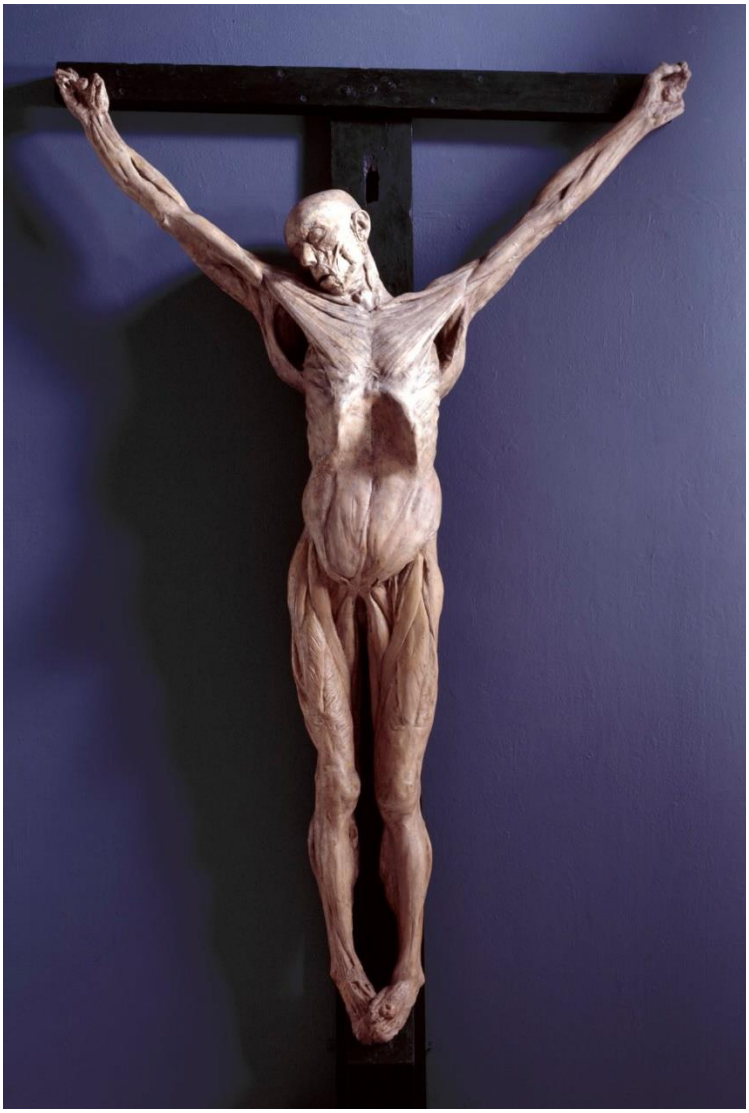

Fig. 5. Thomas Banks RA, *Anatomical Crucifixion of James Legg*, 1801, Plaster and wood, Royal Academy.

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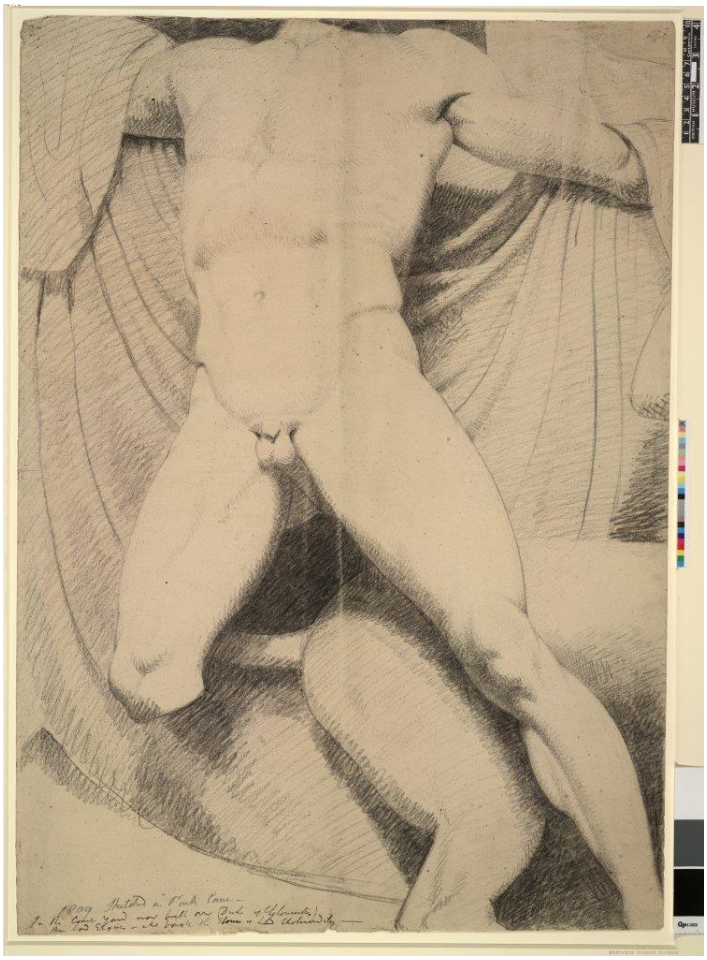

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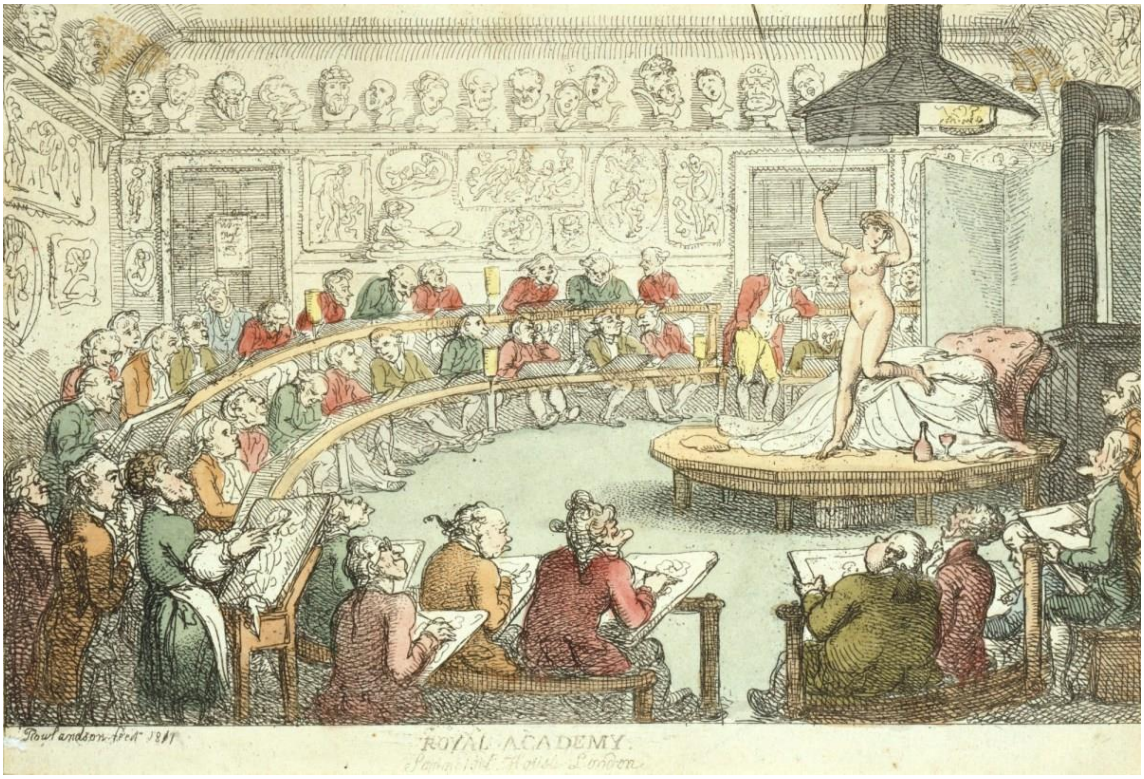

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