Death masks and life masks at Edinburgh University

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One of the undoubted successes of the 1988 Edinburgh festival fringe was the exhibition "Death masks and life masks of the famous and infamous" organised by Edinburgh University's department of anatomy in conjunction with Scotland's cultural heritage unit. Where did these masks come from, why and how were they made, and for whom were they made?

The more "recent" history of the death mask can be traced back to 1444, the year in which St Bernardino of Sienna died. A wax mask (probably the earliest still in existence) was taken of his face to be used on an effigy that lay in state for 26 days after his death. This practice of having effigies lie in state also developed in England and France. These effigies were of wood (in England) or wickerwork (in France) embellished with wax features. The casts for the death masks had no intrinsic value, being simply aids to the effigy makers in their wax reconstruction of the dead person's face.

The death in 1793 of Jean-Paul Marat (fig 1), who had given up medical practice to prosecute the revolution, was one of the last occasions on which a death mask was taken as an aid to making an effigy. This was on the initiative of the painter and revolutionary, Jacques Louis David, who suggested it as an alternative to public display of the corpse (Marat had suffered from a disfiguring skin disease contracted while hiding in the sewers of Paris before the revolution, and his mortal remains were deemed not to be an edifying sight). On Marat's mask a line across the face can clearly be seen where a thread in the plaster was lifted, and this gives us a clue to the making of a mask. George Kolbe, a master of the art, left this account (abridged and amended here):

I lay the head low in the line of exact equilibrium so as to avoid compressing and displacing the relaxed muscles and skin. The eyelids and lips are gently closed, the chin is propped, and so on. The hair is combed smooth and, along with parts where hair is growing on the face, painted over with a thin solution of modelling clay or with oil, so that the plaster may

not adhere when it is poured over. The skin itself contains enough fat and needs no preparation. The outline of the mask, the parts on the neck, behind the ears, and so on, are surrounded with the thinnest of damp paper. A large bowl of plaster of the consistency of soup is ladled over the face a few millimetres in thickness; then a thread is drawn over the middle of the forehead, the bridge of the nose, the mouth and chin. A second bowl of more solid plaster is spread over the first layer like pulp (to provide a firm outer shell), and before it sets the thread is drawn away, dividing the whole into two halves. As soon as the outer layer has set hard, the halved mould is broken apart and carefully detached from the head. The halves thus detached are immediately fitted together again.¹

This provides the "negative" mould from which an accurate "positive" can then be prepared. Kolbe emphasised the importance of being called out quickly before the blood cooled and the features became stiffened: "How often I have been told that the dead man had been so beautiful—but now he is so repulsive." In the death mask of Coleridge (fig 2) the final spasm of a stroke remains on his face (in the downward turn of one side of the mouth), uniquely, if unattractively, recorded for posterity. Fortunately we also have a life mask of Coleridge, which is much more dignified.

Having a life mask made could not have been a comfortable operation. The process was essentially the same as that described above for a death mask with the important proviso that quills or straws were inserted into the nostrils so that the subject could breathe. Why undergo this unpleasant experience? The reason may have been vanity, curiosity, or fashion. The mask makers were artists, and in the days before photography this was the best way to achieve an accurate likeness free from the licence of portraiture or sculpture. The life mask of Keats, cast by Haydon, was gifted to his friend John Hamilton Reynolds shortly before the poet went to Rome, where he died of tuberculosis at the age of 25. Notable sculptors

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FIG 1—Death mask of Jean-Paul Marat (1743-93)

FIG 2—Death mask of Samuel Taylor Coleridge, with left sided facial palsy (1772-1834)

FIG 3—Death mask of John Linn, a murderer executed in 1836, showing evidence of possible repaired bilateral hare lip

FIG 4—Death mask of Joseph Fieschi, who was executed in 1836, showing shrapnel wounds to head

FIG 5—Mask of hydrocephalic adult

FIG 6—Mask of microcephalic woman

who practised the art of mask making included Roubilliac, who made the mask of Sir Isaac Newton, and Turnerelli, an Italian sculptor living in London, who created a mask of Jeremy Bentham.

Death masks thus have a long historical tradition, as aids to sculpture and effigy making or as objects of reverence in themselves. Most extant masks date from the nineteenth century, the century that saw the development of a pseudoscientific movement, phrenology, which played an important part in amassing masks and busts into special collections. Phrenologists had an obvious interest in death masks and busts as one of their fundamental beliefs was that a special relation existed between facial features, the shape of the head, and human personality. They made collections for "educational" purposes of masks and busts not only of the famous but also of the infamous. Masks were made of criminals shortly after hanging as well as people of various racial derivations.

Examples of all of these types of mask are to be found in the Henderson Trust collection at Edinburgh University. The collection was originally housed in the museum of the Edinburgh Phrenological Society, and subsequently transferred to the department of anatomy. The existing collection numbers just over 300 items. By the mid-1880s the collection, consisting of 600 or more items, was generally considered to be the most valuable of its kind in the United Kingdom. Now it is believed to be one of the largest collections still in existence in the world (other smaller groups are housed at Princeton University, New Jersey, United States; the Castle Museum, Norwich; the Black Museum, Scotland Yard; and the Dundee Art Gallery and Museum).

The quality of the masks varies widely. Some are quite superb and clearly the work of professional sculptors. That of Dr Johnson was made under the direction of his medical attendant, Dr Cruikshanks, who later said that the mask was a remarkably correct likeness. Other masks are more bland, but each tells a story. The physical realities are there to be seen: Sir Walter Scott's remarkably high forehead; the wart on Sheridan's right cheek; the hare lips of murderer John Linn (fig 3); and the shrapnel riddled head of Joseph Fieschi (fig 4), whose specially made contraption to assassinate the French monarch, Louis Philippe, blew up in his face. Fieschi survived but was executed in 1836.

The life and death masks of the notorious murderer William Burke and the life mask of his accomplice,

William Hare, are also in the collection, though possibly two of the most memorable and poignant items are the life and death masks of John Any Bird Bell, a baby faced youth of 14 who was executed in 1831 for the particularly savage murder of another boy.

As a consequence of the "scientific" ethos of the Edinburgh Phrenological Society the masks of people with various medical conditions or unusual physical features were collected. These include cases of hydrocephaly (fig 5) and microcephaly and a curious family of six (a mother, her sister, and four of her children) all with remarkably similar, mildly grotesque, microcephalic features (fig 6).

Apart from the masks of the famous, such as Sir Walter Scott, Sir Isaac Newton, Sheridan, Keats, Friedrich Schiller, and Mendelssohn, and infamous, such as Burke, Hare, and Fieschi, the original collection contained casts of the intact skulls and brains of many species of animals and birds as well as a reference and lending library containing an important collection of works of anatomical, sociological, and phrenological interest. Much of the last group, regrettably, has been dispersed, but it is hoped that at least some of the more interesting items that remain will once more be put on display for the benefit of scholars and other interested parties.

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1 Benkard E. *Undying faces*. London: Hogarth Press, 1929.

ANY QUESTIONS

Do calcium antagonists cause hypokalaemia?

A small fall in the serum potassium concentration has been reported with nifedipine in patients treated with a thiazide diuretic.¹ There has also been at least one report of hypokalaemia in a patient receiving nifedipine alone.² The frequency with which this occurs and the mechanism are unknown. Nifedipine may enhance urinary potassium loss in patients taking diuretics, or it might cause potassium to shift from the extracellular to the intracellular space.³ I am not aware of any convincing evidence for either mechanism.—LINDA BEELEY, consultant clinical pharmacologist, Birmingham

1 Murphy MB, Scriven AJI, Dollery CT. Role of nifedipine in treatment of hypertension. *Br Med J* 1983;287:257-9.

2 Tishler M, Armon S. Nifedipine-induced hypokalaemia. *Drug Intell Clin Pharm* 1986;20:370-1.

3 Struthers AD, Reid JL. Nifedipine does not influence adrenaline induced hypokalaemia in man. *Br J Clin Pharmacol* 1983;16:342-3.