Reading for Pleasure

Of holographs and Harvey

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British Medical Journal, 1979, 1, 1339-1340

The individual photographer takes his view of the world from one particular vantage point. The holographer also provides us with a visual replica, but the one that allows the observer to make his own assessment because it may be closely examined in three dimensions. *Understanding Holography* by Michael Wenyon is not difficult and, as the depth of perception increases, new visions appear. Our view of medicine could be revolutionised by Fourier transformation procedures, silica chips, and other technology. Perhaps we should plan to teach medical students simultaneously at different centres by using holographic tele-transportation aids to avoid embarrassment for patients, while the medical teacher (only one may be required for the whole country) shows not only how to elicit a case history (if this is not replaced by computer techniques), but also how to perform a complete physical examination with help from transmitted auscultation (if this is still relevant).

The exaggeration leaves me breathless—but, before we rush off to prepare for the technological shock by setting up our own holograph apparatus at home, I must point out that if we use the lasers that are available at the moment, even a small displacement of the frame caused by the heartbeat could prevent us from obtaining a holographic view.

Harvey without holography

Biographies can be interesting but, like the photograph, the page is only a two-dimensional support for information. Many biographers resemble photographers and assess some particular aspect of a celebrity. Inept and careless judgment may prune a reputation so unfairly that years are needed for regrowth to allow proper appraisal. Nevertheless, although it is possible to move in phase with a good writer, words alone convey distortions that interfere with the creation of biographical holograms.

Geoffrey Keynes's *The Life of William Harvey* (brief notes of new material have recently been added) searches out an elusive character from the shades of the past.

The picture becomes clear and is made all the more enjoyable by careful footnotes that separate fact from conjecture. *The Portraiture of William Harvey* has allowed the same author to show other views of the same subject but, even when true likenesses are seen in colour at the Royal College of Physicians and the National Portrait Gallery, they add impassively to one's appreciation of the physical presence of WH. Despite the scrupulous coverage given within the excellence and completeness of both *The Life* and *The Portraiture*—illuminated as they are by the author's personal researches dating back more than 50 years—the limitations of these media require us to adopt

other aids if we are to have a three-dimensional glimpse of WH. To draw closer to the whole man, we have a choice between using the tools of his time and the techniques of our own—the now classical dilemma of the historian.

If we strive to grasp the knowledge of yesterday we have to try to adjust our understanding within the learning of Aristotle and Galen. Aristotle was the master of discovery by analogy. Neither he nor Galen realised that, in the absence of proper experiment during which measurements are made, analogy is too limiting for the effective development of ideas. Indeed, if the world's thinkers had continued with Aristotle's view we would have remained fixed on the ground, simply repeating and celebrating his discovery of the earth's roundness during the eclipse of the moon—as was possible on 16 September last. If an analogy is used to provide too much detail the true picture becomes totally distorted. This is shown in the following brief, but obviously incorrect, explanation of the reasoning behind WH's discovery.

"While studying another Harveian biography, and before reading de la Mare's poem about WH, I recall being tempted to stand on the cliffs at Folkestone with young Will. We were both 10 years old and gazing into what lay ahead as the great Sir Francis Drake (who had already demonstrated the greater circulation of the oceans) was about to drum the Armada around the lesser circulation of the northern seas back to the heart of Spain . . ."

Conventional revolutionary

Yet, against the background of the knowledge of his period, how Harvey could conceive the actual circulation of the blood appears a wonder; especially since Galen's system—which gave a major role to the liver—made impossible a return of blood to the heart. If we can appreciate Jerome J Bylebyl's paper *The Growth of Harvey's De Motu Cordis* perhaps we may move closer and see WH as a conventional medical revolutionary. This is possible with the help of a new and erudite translation by Gweneth Whitteridge of *An Anatomical Disputation Concerning the Movement of the Heart and Blood in Living Creatures*. Now WH appears before us clothed in seventeenth-century scholarship and immediately captures the rapturous attention of the keen observer by leading him stage by stage—from a consideration of the sequence and pattern of the heart's motion, to the structure of vessels and valves, and with the mass of blood—into the fourth dimension, where mass relates to time and acquires a different meaning.

The image begins to fade as we watch, and then changes with the years; an older man appears before us. His contentment has gone and this despite the fact that within his own lifetime the great Aristotle's circle of the blood (comparable with the change of the seasons and analogous to the rise of moisture from the earth and its return as rain) has been seen as only a cycle of supposed motion. If we look again, WH stands alone in his old age having passed the pinnacle of his achievement when he

exposed Aristotle's error to his "Most Gracious King" by pointing out the true nature of the circulation in the deer as Hannah has depicted.

Moreover, gone is that moment of time when WH wrote, "The heart of all creatures is the foundation of their life . . . the sun of their microcosm . . . from whence all strength and vigour flows. In like manner, the King is the foundation of his kingdom, the sun of his microcosm, the heart of his Commonwealth, from whom all power flows and all mercy proceeds"—and we can begin to know WH and appreciate the depth of his feelings and great sense of personal loss. It seems only yesterday that his rooms were looted; a large part of his life's work destroyed; and then a public demonstration given to show that the final power remaining to his king was the brief efficacy of cardiac systole—reported to throw the arterial blood a royal distance immediately after the beheading.

Old age at Coombe

. . . And so with him in loneliness to Coombe where Sir George Ent called to find *De Generatione*, and John Aubrey described WH as delighting to be in the dark because he could then best contemplate. Aubrey's *Brief Lives* have been recalled within the atmosphere of the May Fair Theatre and Roy Dotrice has captured for us on record the features of the period. Aubrey's statement that WH had caves made in the ground in which he delighted to meditate in summertime, encourages our journey. Here at Coombe, according to his great niece, WH wandered

combing his hair in the fields. Coombe Green House, near Croydon, the place of the Harveys' residence, was rebuilt as Coombe Lodge. We can be amused by the coincidence, as we discover that our interest in cardiology has had maturity thrust upon it by our aging population, because Coombe Lodge is now a local authority home for the elderly. The caves at Coombe that Aubrey mentioned cannot be found—and probably were never there.

The name "Coombe" has described this area for centuries and signifies a hollow or valley by the side of the hill. There are several natural deep hollows in the area and not one has been made by man. On a warm day it is possible to pause here and pursue a neglected part of WH's thoughts. Why should chalk occurring in the ground at Folkestone also be found in similar hollows at Coombe? An intriguing question for a man who, on Salisbury Plain in 1620, had taken part in an investigation of Stonehenge. Was our mild geographer of the circulation about to become a geologist at Coombe?

Books are an aid to understanding and provide pleasure as well as core knowledge; but, to see a man within the perspective of his period, appreciate his struggles and successes, and observe the growth of his ideas, biographical holograms are necessary. Although basic information can be released from the often hidden stores of literature it has to be supplemented, by using the tools of the past and the techniques of the present, in the ways described. In some final words of WH you should "Consider that I have not taken pains for myself, but for all those which love learning."

STRANGE ENCOUNTERS

The reference presented

Whatever trouble and care have been taken by the candidate to obtain referees, and by the referees to prepare their statement and get it into the right administrative hands in good time, the effort may still be wasted if what is written is not made known to those whom it should inform. The content of references should be an important part of the evidence that, collected, weighed, and compared, will enable those who, after considering all the candidates for an appointment, have the responsibility of selecting one who has impressed them as likeliest to succeed well in the job. Neither the composition of the body that has this responsibility nor the pertinence of such skills and experience as its members possess is germane to this note.

The decisions of this selection committee, or advisory appointments committee, or whatever its designation, are practically always accepted by the employing authority. Interestingly, some of those who work most closely with the committee (in an administrative capacity) refer to it, simply, as jobfill, or gapstop—terms that discreetly proclaim the prosaic practical role that its members subserve. Perhaps such present unofficialities may be in general use in the future, when referees will report to the appropriate jobfill and the jobfill team will determine who shall do what, and where. I wonder who will determine the constitution of jobfill and the composition of the team, and what will be the qualifications of the team's members.

Acknowledgment of receipt of references

Usually, these days, the request for a referee's assessment includes a statement that the reply will not be acknowledged and that thanks for it (sometimes fulsome) should be accepted in advance. How, then, may a referee know that his reply has reached the authority who requires it? Posting the letter for recorded delivery is not a sufficient guarantee that it has reached the individual who should deal with it: letters do go astray between their arrival at the correct address and delivery to the addressee.

I have tried enclosing with my assessment an addressed and stamped envelope so that an acknowledgment may be posted to me. This, of course, tends to fail of its purpose when the authority whose acknowledgment is wanted not only lacks the means to pay postage

but claims not to have the staff to attend to the necessary clerical work. Now, I send a card on which I have typed a form of receipt that needs no more than a signature and then to be put in the stamped envelope that I have addressed to myself.

Often, even this procedure is unsuccessful. If I see my stamped and addressed envelope again it may enclose no more than a letter briefly drawing my attention to the statement in the original document that the reply will not be acknowledged. Occasionally, however, my envelope is returned to me unused, as an enclosure with the acknowledgment that my letter about the candidate has in fact been received.

Sometimes, when my first attempt to solicit an acknowledgment is ignored, I write to ask if my inquiry has been received. This further inquiry also is likelier to be ignored than answered. Among the small proportion of replies a few did not answer my question but instead took me to task—at my expense, of course (three, perhaps four, stamps at 9p each, and my time at the typewriter)—for unnecessarily putting authority to the trouble of reminding me that acknowledgments are not made and so are not to be called for.

The point of fussing about acknowledgments is an outcome of hearing from candidates that they have been told at their interview that no word had been received from their referees, and yet I had myself written, correctly addressed, and posted my assessment, well in advance of the due date, and learnt from other referees that they, too, had sent their assessment.

Often, the letter that requests the referee's opinion notes that the reply should be posted in the stamped and addressed envelope that is said to accompany the request. Often, the envelope referred to is not in fact provided; or, if it is, it is not stamped or not addressed or neither stamped nor addressed; or, if addressed, the addressee is, for no apparent reason, not the official in whose name the request seems to have been sent; or the address itself is, inexplicably, quite different from that indicated in the letter.

It is important that the referee should note carefully the date by which his reply should reach its destination. The request may reach him after that date, or so close to it that the reply must be posted on the day the request comes. Sometimes it is revealing to compare the date, if any, on the letter requesting his opinion and the date of the postmark on the envelope in which it arrived: weeks may separate the two.—WILL MACREDIE.