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## **Editorial**

Previous *Vesalius* editorials have covered a number of subjects and reflect the development of the journal to its present position. Early editorials set out the general aims of the journal and discuss its finances. Others address various aspects of the history of medicine such as the history of complementary medicine or how to involve medical students. Some have looked forward to, or back on, the various International meetings which, for many members are the most important part of the ISHM. The most recent editorials have been written by the previous Editors, Thierry Appelboom and John Cule, and their comments provide a very helpful perspective on what has been achieved.

In reversing this sequence I would first like to pay tribute to the Editors, Thierry Appelboom and John Cule and to Diana Gasparon, for their dedicated hard work and foresight. Without them and the financial and moral support of the Societas Belgica Historiae Medicinae, the Journal would not have started or survived. Their standards will be difficult to approach and they deserve grateful thanks for all that they have done.

Secondly, I would invite thoughts on whether we should look at, from time to time, specific aspects of the history of medicine. We might do that by invited or submitted editorials or by bringing several related articles together in one edition.

Lastly, I will note the general aims of the journal, which have not changed since 1995. We still seek scholarly articles that are interesting. Subjects can include any aspect of health, disciplines other than medicine, patients and practitioners, diseases and treatments, the ancient and the relatively recent past. There will be opportunities for shorter and at times lighter pieces.

The journal also has a communicating role between the society and its members and can act as a source of information about events in different countries. There are over 600 members from more than 30 different countries and the journal welcomes contributions reflecting the different approaches, problems and solutions that this variety implies.

The future of the journal depends on a regular supply of high quality material and we look forward to receiving more than we can publish.

David Wright, Editor

I am most grateful to have received help in editing this edition from Dr Samuel Kottek who is acting as guest editor (editeur delegue).

Je voudrais remercier ici le dr. Samuel Kottek qui a bien voulu me seconder dans la revision des articles rediges en francais.

## ***Poetical Allusions to the Circulation of Blood up to the end of the Seventeenth Century***

JR Young

### SUMMARY

The history of medicine has conventionally been studied by research into prose medical texts, which provide an index of the depth of the professional knowledge available to the contemporary physician, but examination of poetry gives a measure of the diffusion of this knowledge into the laity. William Harvey's monumental discovery of the circulation of the blood in 1628 is now acknowledged as a revolutionary milestone in the history of medicine. It was met however with initial rejection by the majority of his colleagues, and it was not until over twenty years later that Harvey and his discoveries start to be mentioned in poetry. It is interesting to note that the eventual acclaim for his work might well have been based on its correspondence with the rain cycle! In the second half of the century, medical poets start to pay tribute to Harvey's contribution, and a number of his colleagues wrote eulogies to him and his work.

### RÉSUMÉ

La recherche sur l'histoire de la médecine a traditionnellement été l'étude de la littérature médicale. Celle-ci nous montre l'étendue des connaissances à la disposition des médecins d'une époque. D'autre part, l'analyse de la poésie nous permet d'évaluer à quel point ces connaissances étaient connues des profanes.

La découverte capitale, par William Harvey, de la circulation sanguine en 1628 est maintenant reconnue comme un événement déterminant de l'histoire de la médecine.

À l'époque cependant, cette théorie a été l'objet d'un rejet de la part de la majorité de ses collègues, et ce n'est que plus de vingt ans plus tard que mention est faite de Harvey et de ses découvertes dans la poésie.

Il est intéressant de noter que la reconnaissance ultime de ses travaux a peut être été due à leur correspondance avec le cycle de la pluie!

Dans la seconde moitié du XVII<sup>e</sup> siècle, des médecins poètes ont commencé à rendre hommage à Harvey, et nombres de ses collègues ont écrit son panégyrique.

The doctrine of correspondences was a recurrent feature of Renaissance philosophy. It had been a means by which mediaeval man had sought some key to the unity of man, the Universe, and the Earth. Concepts of physiology were based on these fanciful analogies with Nature rather than scientific deduction and human dissection, and ideas about blood flow were derived originally from Empedocles' ancient correspondence with the ocean tides, which postulated an ebbing and flowing of blood in the veins in a shuttlewise manner. Galen had modified and improved this simplistic idea and based it on a similarity with the rain-cycle. This was another easily understood correspondence, suggested by Aristotle, who had made an analogy between the blood being soaked up by the peripheral tissues in the same way that the rain which falls on the Earth is soaked up by the fields. It was hardly surprising that the doctrine of *Correspondences* was readily seized upon by contemporary poets, since it was in itself so essentially poetical.

Harvey himself not only compares the circulation of the blood to the circular motion of the planets but also to the 'circular' motion of rain, *Which motion we may call circular, after that same manner that Aristotle says that the rain and air do imitate the motion of the superior bodies. For the earth being wet, evaporates by the heat of the Sun, and the vapours being rais'd aloft are condens'd and descend in show'rs and wet the ground.*<sup>1</sup>

This cyclical movement from sea to clouds to rain to rivers to sea was perhaps an instance in the 17th Century mind of God's providential ordering of the universe so that nothing is wasted. Sylvester in 1605 alludes to it clearly in *Divine Works*:

*The purest humour in the Sea, the Sun  
Exhales in the Air, which there resolved, anon  
Returns to water; and descends again  
By sundry ways unto his mother Main.*<sup>1</sup>

The physician/poet Henry Vaughan refers to this rain-cycle in a translation from Latin of Boethius (A.D. 470/475-524). Vaughan translates:

*As blood let out forsakes the heart  
And perisheth; but what returns  
With fresh and brighter spirit burns?*

Martin (1957) suggests that *probably Vaughan is thinking here of Harvey's work on the circulation.*<sup>1</sup> It is more likely that he is considering the rain-cycle, which Boethius would also have known about. These few lines, in fact, are a very good rebuttal of the Empedoclean ebb-and-flow: after forsaking the heart, the blood does not trickle back - it *perisheth*. This is surely a suggestion that it is soaking into the tissues. It might be usefully added here that Plato and Anaxagoras had taught that all rivers and springs flowed from a vast cavern in the centre of the earth, and to it they proceeded. The book of *Ecclesiastes* refers to it somewhat obliquely: *All the rivers run into the*

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sea; yet the sea is not full; unto the place from whence the rivers come, thither shall they return again.<sup>5</sup>

Sir John Davies' poem *Nosce te Ipsum* (1599) tells very clearly of the circulation of surface water on the earth:

*And as the moisture which the thirsty earth  
Sucks from the sea, to fill her emptie veins...  
Yet nature so her many streams doth lead and carry...  
Till she her selfe unto the Ocean marry  
Within whose watry bosome first she lay.<sup>6</sup>*

Richard Crashaw (1612-1649) is doubtless referring to Plato's great cavern in *Sospetto d'Herode*,

*Below the Botome of the great Abyesse,  
There where one Centre reconciles all things,  
The world's profound Heart pants.<sup>7</sup>*

He is placing the world's deep *Heart* in an analogous situation to the human heart and alludes very clearly to the pumping (panting) action in a circulatory metaphor.

Thomas Traherne (1637 - 1674) was another metaphysical poet who followed science closely and he almost certainly intended a double meaning and an allusion to the rain-cycle in a poem that he actually called *The Circulation*. His correspondences and abridgements find circulations everywhere.

*All Things to Circulation owe  
Themselves; by which alone  
They do exist ...  
The Thirsty Earth drinks in the Rain, ...  
Which run like Rivers from, into the Main,  
And all it doth Receiv returns again?*

To complicate the matter further, Plato had suggested that elements changed from one into another in a circular manner. He had called this process "transmutation", and both Milton and Sandys have alluded to it in their poetry. In addition to the possible misunderstanding caused by this, the analogy of the rain-cycle to the alchemical process of distillation was also fairly inevitable. In fact, distillation bears more of a resemblance to the Aristotelian rain-cycle than to any circular movement, because it basically involves much more of an ascent and descent of liquids and vapours than any type of circular orbiting.

Perhaps predictably, furious debate and rebuttal followed the publication of *de Motu Cordis* in 1628, and this continued to rage for some twenty years. A biographer of William Harvey writes, *after his book of the Circulation of the Blood came out, he fell mightily in practice, and that, 'twas beleaved by the vulgar that he was crack-brained, and all the physitians were against his opinion.<sup>9</sup>* It would appear from this and other biographies that during this period, an embarrassed silence prevailed. The President and Fellows of the Royal College of Physicians

seem to have initially considered his discovery as *an odd eccentricity in a worthy fellow and an excellent friend, one to be listened to and politely humoured, but not discussed.<sup>10</sup>*

Harvey refused to enter into any argument or debate about his discovery, and remained quietly confident until 1649 when he eloquently answered (and demolished) some fairly strong criticisms of the French anatomist, Jean Riolan. The twenty-one years of silence is very interesting. It is highly significant that John Donne, perhaps the most forceful and influential English lyrical poet of the century, did not mention Harvey's discoveries. Poynter cites numerous facts, which strongly suggest that Donne had met Harvey and even attended Harvey's Lumleian lectures." Donne was certainly interested in medicine and made a great number of medical allusions in his works (more than to any other science<sup>12</sup>) He also had a definite obsession with circles. He considered God to be the perfect circle and thought of the circle as a symbol of God. He even preached a sermon on the subject: *O Eternal and most gracious God, he wrote, who, considered in thy selfe, art a Circle, first and last, and altogether.<sup>3</sup>* Why then did he not seize on the Circulation of the Blood (as other metaphysical poets who succeeded Donne did so)? This silence is significant evidence of the coolness of the reception of Harvey's ideas in the years immediately following 1628.

The first two poems to mention William Harvey by name are mentioned for the sake of completeness: indeed the first is in Latin and written in 1624. It was by Sir Peter Bowne (1575-1624) praising Harvey's dexterity both in his learned lecturing and in his wonderful skill at dissection. It is thought that this eulogy arose from the author's attending Harvey's celebrated Lumleian lectures, which began in April 1616.<sup>14</sup>

The second poem is in English and alludes to Harvey's argumentativeness, as well as his keenness for dissection:

*What ho! Doctor haruie, yt are ranked among perui",  
Are you still dissecting?<sup>15</sup>*

This comes from an anonymous Cambridge medical student, and compared to the references to other doctors in the same manuscript is complimentary: most of the verses are an obscene libel on the Fellows of the College of the time.

The first poetic reference to Harvey's discoveries after 1628 is from William Cartwright in 1638.

*New, not as th' year, to run the same Course o'r  
Which it hath run before,  
Lest in the Man himself there be a Round,  
As in his Humor's found,  
And that return seem to make good  
Circling of Actions, as of Blood;<sup>16</sup>*

Although this poem does not mention Harvey by name, there is evidence to show that the poet (who was a cleric) had social links with him.<sup>17</sup>

The first poetical reference to the circulation theory, which quotes Harvey by name, is in 1651<sup>18</sup> by Sir John Berkenhead (1616-1679), and interestingly is entitled *In Memory of Mr William Cartwright* (who was the author of the verse quoted above).

*For as immortall HARVEY'S searching Brain  
Found the Red Spirit's Circle in each Veyn,...  
And proves its Circulation through all Arts.  
All-over Wit, ne'r runs a-ground, but rides  
In ever-flowing never-ebbing Tides.*<sup>19</sup>

In 1653, Martin Lluelyn wrote the dedicatory poem to William Harvey's other important anatomical book, *Exercitationes de Generatione Animalium*.<sup>20</sup> Harvey is addressed,

*With Drake and Candish<sup>b</sup> hence thy Bays is curld  
Fam'd Circulator of the Lesser World.*<sup>21</sup>

This compares Harvey's discovery to the contemporary achievements of the great circum-navigators of the World. Lluelyn pays tribute to Harvey's rejection of long-accepted yet unproven dogma and his reliance purely on scientific deduction from Nature,

*Great Light of Art,  
Who to the long-dim World dost sight impart...  
This rescue thence, that Science is not Creed  
Who for their Age alone do Writers trust,  
From Books to Nature thy Appeale is made  
Thy Copies by their Archetype are swayd.*<sup>22</sup>

He also describes Harvey's previous battle with adverse critics:

*From Forreign Coasts, and to the conflict come,  
Some they bold Challengers, thy Seconds some  
But when Experience<sup>11</sup> vanquish't their defence  
And Prejudice was captive led by Sense:  
The Ingenuous laid down Arms, and fled to you  
As their Instructor, and their Victor too.*<sup>22</sup>

This *Seconds* alludes to James Primerose, who was admitted to the Royal College of Physicians when William Harvey was an examiner. This was the year prior to Primerose's virulent but groundless attack on de *Motu Cordis*, in his book, *Exercitationes et Animadversiones in librum Guiliemi Harvaei de Motu Cordis et Circulatione Sanguinis*,<sup>6</sup> (1630).<sup>21</sup> The *Forreign Coasts* is a reference mainly to Jean Riolan in Paris,<sup>25</sup> Aemylius Parisianus in Venice,<sup>26</sup> and Caspar Hofmann in AltdorP (Germany), all of who joined in the onslaught and were highly critical of Harvey's work. The last couplet above refers to

Hofmann who later graciously and magnanimously recanted publicly and acknowledged Harvey's great contribution.<sup>28</sup>

Also in 1653, in the English translation of de *Motu Cordis*, appeared a very short dedicatory verse,

*Long Aristotle, long may Galen live  
Whose great renown all ages shall survive  
And long live Harvey, they the Arts did find  
Which this brave Englishman has now refm'd.*<sup>9</sup>

In 1654, Thomas Washbourne, the canon of Gloucester, wrote a poem entitled *The Circulation* in which we are left in no doubt that Harvey's theory and evidently his methods had become well known outside purely medical circles. Washbourne's poem starts,

*Our famous Harvey hath made good  
The circulation of the blood,  
And what was paradox we know  
To be a demonstration now.*<sup>29</sup>

He goes on to mention the correspondence of the rain-cycle (as well as other natural cyclical events):

*Thus we see almost every thing  
Circling about as in a ring....  
Rivers which borrow from the main  
Their streams, do pay them back again.*<sup>30</sup>

In the following year (1656), the sceptic poet/physician John Collop included a eulogy to William Harvey in his iconoclastic *Poes/s Rediviva*. In this poem, Collop compares Harvey to a latter day Hercules:

*Beyond a Hercules labours thou dost go.  
Seav'n headed Hydra.\* error multiply'd,  
Thou need'st no Club, thy knife can soon divide:  
Augean filths<sup>9</sup> no work when vy'd with thee,  
Do'st cleanse the Jakes of all antiquitie,  
All truths before thine, did like heat-drops<sup>h</sup> fall,  
Vanish'd so soon, scarce seen, or known at all.*<sup>31</sup>

In 1663, Abraham Cowley (1618 - 1667), regarded in his day as the foremost English poet... pays graceful tribute ... to the great achievements of William Harvey.<sup>31</sup> Like Collop, he too was a Royalist and was arrested by the Roundheads during the Civil War for carrying messages from Queen Henrietta in Paris back to the King. Indeed it is said that he was only granted his medical qualification by the government as a 'blind' in his activities in the Royalist cause and did his medical studies whilst arrested and released on £1000 bail.<sup>33</sup> Whether or not this is true, he was certainly a Doctor of Physick (M.D. Oxon 1657).

The *Ode to Harvey* is one of three eulogies which Cowley wrote; the other two were dedicated to Thomas

Hobbes, the noted philosopher and the physician, Sir Charles Scarborough. These three men were also staunch Royalists. William Harvey had been Charles I's physician; Hobbes had spent 1641-52 in Paris where he had been personal tutor to Charles II. Scarborough had been ousted from his fellowship at Caius College, Cambridge by the parliamentarians in 1641 - the same year they had also plundered Harvey's large collection of anatomical specimens in the College Museum. (It was such Roundhead vandalism as this, which prompted Cowley to pen the phrase *a barb'rous War's unlearned Rage*.) After Scarborough's ejection from Cambridge, he sought refuge in Oxford, where he was evidently keen to take up arms for the Cavaliers. William Harvey dissuaded him from such a violent course of action, saying, *Prithee, leave off thy gunning and stay here; I will bring thee into practice*.<sup>34</sup> Scarborough accepted this advice and in 1656, he succeeded Harvey as Lumleian lecturer at the Royal College of Physicians of London.

His *Ode Upon Dr Harvey* is almost an apotheosis, in which he alludes to the classical story of Daphne and Apollo, in which Apollo (Harvey) pursues Daphne (*Coy Nature*), but on the point of his conquest of her, she prays to Zeus for help and she is metamorphised into a laurel tree. The classical story ends here with Daphne's virginity intact. In Cowley's Ode, however, this does not halt Harvey, *our Apollo*. He went after her, first into the tree and then into the bloodstream!

*Into the Bark, and root he after her did goe:...*  
*Harvey pursues, and keeps her still in sight.*  
*But as the Deer long hunted takes a Pood,*  
*She leapt at last into the winding streams of blood.*

She then finds her way to the heart thinking herself to be safe. The way Harvey 'rapes' Nature is very reminiscent of the archaic style and allegory of the earlier poet, Edmund Spenser.

*Till at the heart she stay'd ...*  
*Harvey was with her there,*  
*And held this slippery Proteus' in a chain,*  
*Till all her mighty Mysteries she descry'd,*  
*Which from his wit the attempt before to hide*  
*Was the first thing that Nature did in vain*<sup>35</sup>

Cowley points out

Thus Harvey sought for Truth in Truth's own Book<sup>26</sup> and goes on to say how Harvey has benefited medicine, which was itself in dire need of therapy:

*Great Doctor! Th' Art of Curing's cur'd by thee,...*  
*Purg'd of old errors by thy care*  
*New dieted, put forth to clearer air,*  
*It now will strong and healthful prove,*  
*It selfe before Lethargick lay and could not move.*<sup>37</sup>

Sir Geoffrey Keynes, in his definitive biography of William Harvey, proposed that Cowley's book on Experimental Philosophy owed much to Harvey's influence: the title page has an insistence on experiment, and Cowley proposed the building of a college for Harveyan style research with a surgeon and many animals for experimentation.

Also in 1663, the poet John Dryden (1631 - 1700) (who was Poet Laureate in 1668) mentions William Harvey and the Circulation.

*The Circling streams, once thought but pools, of blood*  
*(Whether Life's fewel, or the Bodie's food)*  
*From dark Oblivion, Harvey's name shall save.*<sup>3\*</sup>

Dryden, like Cowley and Harvey was also an ardent Royalist, and in this poem-letter, which is dedicated particularly to Charleton's works on Stonehenge, Dryden uses the metaphor of the monolithic stone circle as an ageless symbol of the Divine Right of Kings, stretching back to time immemorial. This is perhaps an appropriate moment to point out that not all intellectual and scientific physicians were Royalists. Thomas Sydenham, the 'English Hippocrates', was a Parliamentarian Captain of Horse!

In 1679, the philosophical poet, Henry More published a poem in Latin<sup>39</sup> called simply *Circulatio Sanguinis*.<sup>40</sup> Despite the date of publication, it has been suggested that this poem was probably written a few years earlier. There is a possibility that More had met up with Harvey between 1651 and 1653.<sup>40</sup> More's poetic tribute was in Latin, but it was eventually translated and published in English and is a joy to read.<sup>41</sup> It is a wonderful example of how serious medical tracts were presented to an amazed world not only in a poem but in the style of Latin verse usually used in classical Latin epic poetry. A few years later, another clergyman, Bishop Robert Grove also described the tying off of the aorta and vena cava in Latin verse (*Carmen de sanguinis circuitu, a Guiliemo Harvaeo, primum invento*. Londini, 1685).<sup>42</sup>

Neither Thomas More nor Robert Grove were scientists. Indeed they were both vicars. Their clear acceptance and obvious understanding of Harvey's radical new theory indicates two important points. First it shows that the gulf between religion and science had not yet formed.

Indeed More's life-long interest in contemporary science was partly motivated by a desire to draw on it for the existence of spirit and of God.<sup>43</sup> Secondly, together with Dryden's lines of 1633, they indicate that a knowledge and understanding of Harvey's work has now reached the non-medical public.

For the sake of completeness, it should be mentioned that in 1650 (seven years before William Harvey's death!) a Dutch poem was written *On the Death of Harvey* by van Assendelft. This was included in the Dutch translation of *de Motu Cordis* published that year.<sup>44</sup> This verse shows that although physicians in Continental Europe might have been mistaken about his death, (concerning which there had been rumours), by this time they had developed admiration for the important work of this great man.

It has been suggested that Harvey's work did not only affect contemporary scientific thought. In Sawday's study of the impact of Renaissance medical progress on contemporary literature, he has suggested that after the acceptance of *de Motu Cordis*, the language of English poetry changes. *Harvey's discoveries, symbolic of the advances of science itself would seem to have been assimilated into the common vocabulary of scientist and poet alike.*<sup>45</sup> Could it be that the scientists' attempts to embrace a clearer style of English to describe their anatomical discoveries without recourse to allegory, has weakened the former significance of the correspondences which had hitherto been so important not only to poetry, but to the whole Elizabethan concept of the World?

#### Notes

- a The term 'perui' (i.e. parvis) alludes to the group of argumentative lawyers who met on the *parvis* or small terrace in front of St. Paul's.
- b *Candish* here refers to *Cavendish*: Francis Drake (1580) and Thomas Cavendish (1588) were the second and third circumnavigators of the World.
- c The word, *Experience* was also used to mean *Experiment* at this time.
- d (Latin) *A Dissertation and Depreciatory References to the Book by William Harvey about the Movement of the Heart and the Circulation of the Blood.*
- e This English translation is in HARVEY, William. *The anatomical exercises of Dr William Harvey concerning the motion of the heart and blood*, 1653, London. The original Latin poem (1648) is thus:  
*Vivat Aristoteles, vivat Galenus et ingens.*  
*Hippocrates, quorum fama perennis erit.*  
*Vivat et Harveius, tum sanctas nempe tulerunte*  
*Illi artes, quas nunc anglus hic ecce colit.*
- f *Hydra* is the mythical nine-headed serpent of the Lernean Marsh, killed as Hercules second labour. It was often used as a symbol for misjudgment since when one head was cut off, two more grew in the place!
- g The *Augean Filths* alludes to another (the fifth) labour set by Hera for Hercules. The Augean stables had

held 3,000 oxen and had not been cleansed for thirty years. When Hercules was tasked to cleanse the filthy stables, he diverted two rivers, (the Alpheus and Peneus) and so cleansed them in one day. Brewer's *Phrase & Fable* says: *To cleanse the Augean stables has come to mean To clear away an accumulated mass of corruption, moral, religious, physical or legal.* (BREWER, E. Cobham. *Dictionary of Phrase and Fable*, 1870, rev.ed. Cassell, London, 1981, p.74.)

- h The *heat-drops* are the slight shower foretelling a hot day.
- i Proteus was Neptune's herdsman, who was impossible to catch: "he would elude anyone ... by changing his shape, for he had the power of changing it in an instant into any form he chose"
- j (Latin) *The Circulation of the Blood.*

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- 37 *Ibid*, lines 59-73.
- 38 DRYDEN, John. To his Honoured Friend, Dr Charleton on his learned and Useful Works; and more particularly this of STONE-HENG, by him restor'd to the true Founders. Text from Charleton's Chorea Giganteum, 1663, collated with Poetical Miscellanies: The Fifth Part, 1704. as quoted in Dryden Poems and Fables, ed. Jas. Kinsley. O.U.P., London, rev. edn. 1962. p. 32.
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- 40 KEYNES, G. *op. cit.* (n.24). pp. 392, 394.
- 41 SHERWYN, Walter and FREYMAN Jay. (Translators) see SHUGG, Wallace "Henry Mores 'Circulatio Sanguinis'. An Unexamined Poem in Praise of William Harvey." *Bull. Hist. Med.*, 46, 180, 1972.
- 42 AGNEW, L.R.C. "De Sanguine Episcopoque- A discussion of Bishop Robert Grove [1634-1696] and his carmen de Sanguinis Circuitu, &c. [1685]." *Bull. Hist. Med.*, 34, 329, 1960.
- 43 SHUGG, Wallace, *op.cit.* (n. 42) p. 189.
- 44 FRANCIS, W.W. "On the Death of Harvey, A premature threnody by Nikolaas van Assendelft," *J. Hist. Med.* xii. 254-5, 1957.
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#### Biography

John Riddington Young is a consultant otolaryngologist, working in North Devon. He has recently completed a research degree (M.Phil.) on the subject of "Medical Ideas in English Poetry to the end of the 17th Century". He has co-authored a book on the history of otolaryngology and last year he wrote (and illustrated ) a book on Devon Church history. His particular interest in ENT is the sexual aspects of the nose!

# Embaumeurs/médecins de l'Egypte ancienne

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## RÉSUMÉ

Les prêtres-embumeurs qui réalisaient quotidiennement la momification soignaient le corps en lui apportant une certaine immortalité. Auraient-ils pu exercer également la profession de médecin ?

## SUMMARY

On a daily basis, priest embalmers carefully carried out mummification of bodies to give them a certain immortality. Could they also have practised the profession of medicine?

Confrontés quotidiennement au traitement des corps, les prêtres-embumeurs ont acquis des connaissances et une expérience opératoire irremplaçable grâce à la vision directe de l'anatomie interne. De nos jours, il semble difficile de mettre en évidence un lien entre ces professionnels de la mort et les médecins. Pourtant, les deux professions ont une fonction commune : la guérison du corps, car les substances qui servent au traitement *post-mortem* sont de véritables préparations à l'égal des remèdes utilisés pour le corps malade. Les embumeurs connaissaient parfaitement les vertus thérapeutiques de nombreux produits à usage médical. Réciproquement le papyrus Edwin Smith (1), traité de chirurgie, cite, dans son vocabulaire, le pansement *ssd* comme étant utilisé à la fois par des embumeurs (2) et par des médecins. Réalisaient-ils de véritables "autopsies" médico-légales comme le suggère le Dr. F. Jonckheere (3) ?

### Embumeur et médecin ?

Dès l'Ancien Empire, on trouve de rares attestations de dignitaires qui associent à la fonction médicale, la connaissance des mystères liés à la pratique de l'embouement. Ainsi Neankhré (4), dans les inscriptions de sa tombe à Giza, est dit "médecin du palais" (5) et "supérieur des mystères" (6). Ces deux titres accolés peuvent permettre de croire que ce praticien exerçait les deux professions au sein du Palais royal. A l'époque ptolémaïque, les embumeurs augmentent leurs activités. Le métier semble désormais accessible aux femmes puisque Tanetaoua (7), femme-médecin, avait la charge de momifier les corps féminins. Les exemples n'abondent pas dans la littérature, aussi est-il permis de se demander s'il était souhaitable pour un médecin, soucieux de préserver sa respectabilité, de préciser même dans l'au-delà sa fonction d'embumeur? Un exemple de parenté entre un médecin et un embumeur nous est donné sur la stèle 1086, conservée au Musée de l'Ermitage. Dédiée à Minemsehet, elle porte la mention de son grand-père Nebneb qui était embumeur ainsi que le nom de son père, Sahi, qui était

"Chef des médecins" (8). La confusion s'installe dans les esprits lorsque Hérodote (9) désigne par "taricheute", les fabricants de momies et les "saleurs" c'est-à-dire ceux qui interviennent dans la conservation du poisson. En outre, des exemples bilingues attestent que le terme "médecin" traduit le grec "taricheute" (10). Le papyrus Oxy. III, 75 (11), relatant "un rapport d'accident avec ordre d'examiner le cadavre", montre que le taricheute pouvait exercer des activités spécifiques réservées aujourd'hui au médecin-légiste. O. Nanetti (12) en publiant vingt rapports de médecine légale a révélé que les médecins/embumeurs délivraient des attestations de décès, des rapports de visite médicale et de soins, ainsi que des témoignages écrits lors de procès. Ils pouvaient également rédiger des certificats de maladie à un employé. Ce statut officiel d'expert légal est acquis dans l'Egypte impériale (13). Les professions pourraient se confondre. Définir les strictes cadres d'exercice de chacun paraît bien délicat.

L'abord physique du corps n'est pas du tout le même pour ces deux techniciens. A l'époque pharaonique, le savoir médical égyptien, aussi réputé soit-il sur le plan international, semble figé dans des textes se transmettant de génération en génération, de dynastie en dynastie, sans aucune remise en cause, ni évolution de leur différent contenu. Diodore de Sicile (14) affirme que, dans les traitements prescrits à leurs patients, les praticiens ne peuvent s'écarter, sous peine de mort, des règles établies à une époque reculée par de nombreux médecins renommés. En outre, les médecins de l'époque pharaonique limitent le plus souvent leurs appréciations cliniques aux seules cavités naturelles du corps (15). De même, l'identification d'instruments médicaux pour ces périodes restent encore à faire. En revanche, l'approche et la pratique quotidienne des embumeurs sur le cadavre et dans ses structures les plus intimes, tant humaine qu'animale, ont pu parfaitement leur permettre d'accumuler un savoir tiré d'observations anatomiques. Ainsi de nouveaux noms d'organes apparaissent dans le Rituel de l'embouement de l'Apis. On relève l'emploi de termes spécifiques

désignant la trachée et l'oesophage (16). En fait, il peut simplement s'agir de noter la présence d'un organe reconnu sans aucune approche scientifique.

A partir de l'Égypte gréco-romaine, la médecine s'engage résolument dans la voie d'une véritable démarche scientifique. Les quelques deux cents papyrus connus de cette période couvrent tous les domaines du savoir médical (17). Le papyrus médical Vindob. D. 6257 (18), écrit en démotique, est un recueil de six écrits médicaux d'époques et de sujets divers. M.-H. Marganne (19) a parfaitement démontré qu'il existe des parallèles certains entre les prescriptions que ce papyrus contient et celles relatées par le papyrus Ebers, en dépit d'une influence hellénique. Les papyrus de chirurgie décrivent avec précision les séquences opératoires et nomment les noms des instruments utilisés; ce qui n'est jamais le cas dans les textes de l'époque pharaonique. De même, l'enseignement de la médecine se développe. Il comporte deux aspects, l'un théorique, l'autre pratique. L'apprentissage impose la lecture et l'explication des textes classiques. Le futur médecin doit ensuite "mettre les mains dans le sang" (20).

A l'époque pharaonique, la profession d'embaumeur semble se transmettre de père en fils (21). Les médecins reçoivent quant à eux une formation académique dans la Maison de Vie (22). A partir de l'époque hellénistique, l'enseignement médical s'ouvre peu à peu à tous les hommes libres (23). Mais, pour cela, il fallait impérativement être admis dans le proche entourage d'un médecin en exercice, car l'essentiel de l'enseignement se pratiquait au chevet du malade, pendant une période qui pouvait durer six années (24).

#### Ouverture des corps et dissection

Le prêtre-embaumeur doit avoir le savoir nécessaire pour pratiquer l'ouverture du cadavre. Cette terrible blessure infligée au *corps*, toujours réalisée sur le flanc gauche, est soumise à une obligation religieuse (25). Sa position et sa direction se justifient par la nécessité de débarrasser au plus vite les cavités des organes corrompus, afin de favoriser la maturation du corps. Sa direction, d'abord verticale, devient oblique en bas et en dedans. Sa longueur varie de 7 cm pour un enfant à 15 cm pour un adulte. Elle commence à la 10<sup>e</sup> côte pour se terminer à l'épine iliaque antéro-supérieure de l'os coxal gauche.

Au temps de l'École d'Alexandrie, la médecine autorise l'ouverture du corps, sous certaines conditions. Herophile (26) procède aux premières dissections et vivisections sur un corps humain. Auparavant, Aristote (27) la pratique seulement sur des animaux morts : "la dissection qui se fait sur l'animal enseigne la position de

chacune des parties, son nombre, le caractère de sa substance, sa grandeur et sa forme". Celse (28) - époque de Tibère - donne une nouvelle impulsion aux études anatomiques car pour lui "il est nécessaire d'inciser les cadavres et d'explorer leurs viscères et leurs entrailles". A l'époque post-alexandrine, Galien (29) impose l'étude de l'anatomie comme base fondamentale pour une bonne pratique médicale. On remarque d'ailleurs, dans ses écrits, l'emploi d'un terme spécifique qui signifie d'abord l'ouverture des parois du tronc afin d'examiner les viscères, puis la dissection de toutes les parties profondes et, enfin, la dissection dans sa totalité (30).

L'incision réalisée alors est médiane et de direction verticale. Elle part de la face antérieure du cou et se termine dans la région pubienne. Constante, quelques soient le sexe et la taille du défunt, elle a pour unique finalité de visualiser au mieux l'ensemble des organes en place, d'étudier leurs rapports et leurs fonctions. Elle n'est soumise à aucune contrainte religieuse. Ainsi, à l'ouverture d'un corps, le praticien a une vision directe et brutale des organes. La vérité est là exposée crûment: "ce que la dissection fait apparaître force même ceux qui pensent le contraire à reconnaître la vérité contre leur volonté" (31).

Les médecins de l'Antiquité qui voulaient effectuer des dissections sur des sujets humains ont rencontré de nombreuses difficultés (32). Même à l'époque de Galien, cette pratique a été limitée (33). Bien plus tard, au I<sup>er</sup>/VII<sup>e</sup> siècle, la dissection fut pratiquée par les médecins arabes en dépit de son interdiction par la religion musulmane. Le terme *tasrih*, traduit "incision", mot qui englobe la dissection et l'anatomie, a permis de masquer ces pratiques aux yeux des croyants (34).

De toute évidence, les compétences des embaumeurs et des médecins se sont modifiées aux longs des siècles. Mais, à l'époque pharaonique, le contraste apparaît saisissant entre l'art médical décrit dans les textes et la technique utilisée par les embaumeurs. Celle-ci consistait en une activité tellement particulière qu'il est possible de se demander si l'embaumeur n'était pas chargé d'exécuter le plan thérapeutique délivré par un tiers médecin. Ces professionnels de la mort ont eu, au cours du temps, le contact le plus ancien et le plus précis avec l'anatomie humaine et animale au point que les modernes comme Ps.-Galien (35) considèrent que "beaucoup de pratiques, aussi parmi celles qui s'utilisent en chirurgie, ont été inventées à la suite de la dissection des cadavres dans les embaumements."

Beaucoup d'imprécisions entourent encore les différentes activités de ces spécialistes du corps, mais il semble envisageable d'en lever quelques unes par le biais du lexique spécifique de l'embaumeur qui traduit toutes

les humeurs et tous les liquides qui sont visibles à partir de l'incision pratiquée sur le cadavre. Une extension peut regrouper de nombreux termes de troubles et pathologies recensés dans les papyrus médicaux par la présence à la fin de chaque mot du déterminatif hiéroglyphique ayant la valeur de "l'incision" (36) Il y a là sans aucun doute un lien qui relie la profession de l'embaumeur à celle du médecin.

#### Notes

- 1 J.H. Breasted, *The Edwin Smith Surgical Papyrus I*, Chicago, 1930, 224, glose A, V4-5.
- 2 Ce nom de bandage n'est pas cité dans le Rituel de l'embaumement pour les humains, S. Sauneron, *Rituel de l'embaumement*, SAE, Le Caire, 1952, 56 ; en revanche il est parfaitement mentionné dans le Rituel de l'embaumement des taureaux Apis, R.L.Vos, *The Apis Embalming Ritual P. Vindob. 3873*, OLA 50, Leuven, 1993, 392, no 495.
- 3 Fr. Jonckheere, "A la recherche du chirurgien égyptien", *Chronique d'Égypte* 26, 1951, 39.
- 4 H. Ranke, *Die Ägyptischen Personennamen I*, New York, 1935, 171, 16.
- 5 Fr. Jonckheere, *Les médecins de l'Égypte pharaonique*, Bruxelles, 1943, 100-102.
- 6 Mastaba LG 55; *PM* 111,1,33; F. Jonckheere, *ibid.*, 47-48, no 39 ; Le supérieur des mystères apparaît dans le Rituel de l'embaumement comme le chef des embaumeurs, S. Sauneron, *ibid.*, I 1/9 sq.
- 7 Papyrus B.M. 10074, N. Reich, *Papiri juristischen inhalts...*, DAWW 55/3, London, 1917, 45, 47 et 49, no 2.
- 8 P. Ghalioungui, *The Physicians of Pharaonic Egypt*, Cairo, 1983, 24-25, no 59.
- 9 Hérodote, *Euterpe*, II, 86.
- 10 W. Peremans, E. Van't Dack, "Prosopographia Ptolemaica III", *StudHell* II, 1956, 218, no 7026 ; 219, no 7035a; N. Reich, "Ein demotischer Kaufpandvertrag", *Sphinx* 13, 1910, 258 ; H. de Meulenaere, "Die "Balsamierer" des P. Berlin, dem. 31 I6", *ZAS* 80, 1955, 80; Il en va de même pendant l'embaumement de Jacob, *Genèse* 50, I-3.
- 11 B.P. Grenfell, A.S. Hunt, *P. Oxy. III*, London, 1903, 475.
- 12 O. Nanetti, "Ricerca sui medici e sulla medicina nei papiri", *Aegyptus* 21, 1941, 301-314.
- 13 M.-H. Marganne-Mélard, *La médecine dans l'Égypte romaine: les sources et les méthodes*, *ANRW II*, 37/3, 1996, 2728.
- 14 Diodore de Sicile, *Bibliothèque Historique* 1,82, 3 ; M.-H. Marganne-Mélard, *ibid.*, 2716.
- 15 Les actes thérapeutiques réalisés sur les corps royaux sont rares à la vue des clichés radiologiques, J.E. Harris, and K.R. Weeks, *X-Raying the Pharaohs*, London, 1973 ; J.E. Harris and E.F. Wente, *An X-Ray Atlas of the Royal Mummies*, Chicago, 1980 ; il en est de même quant aux vestiges osseux de particuliers. En 1998, le dégagement des vestiges humains exhumés de deux tombes pillées (N2T1 et T2), datées de l'époque romaine, sur le chantier de fouilles de Ayn Manawir dans les oasis, a montré de nombreuses pathologies osseuses invalidantes non traitées.
- 16 R.L.Vos, *ibid.* vs. I 4,6 (bis), 7 (bis) . 20 ; vs. Ma, 24. Il est dommage que la partie technique du Rituel de l'embaumement des humains n'ait pas été retrouvée.
- 17 M.-H. Marganne-Mélard, *ibid.* 2718-2720. M.-H. Marganne, *Inventaire analytique des papyrus grecs de médecine*, EPHE IVe section, 1981.
- 18 E.A.E. Raymond, *A Medical Book from Crocodilopolis. P. Vindob D. 6257*, *MPER X*, Wien, 1976.
- 19 M.-H. Marganne-Mélard, *ibid.*, 2723.
- 20 M.-H. Marganne-Mélard, *La chirurgie dans l'Égypte greco-romaine d'après les papyrus littéraires grecs*, Leiden, Boston, Köln, 1998, 22.
- 21 Diodore de Sicile, *Bibliothèque Historique* 1,91.
- 22 G. Lefebvre, *Essai sur la médecine égyptienne de l'époque pharaonique*, Paris, 1956, 19-20 ; L. Habachi & P. Ghalioungui, "The House of Life of Bubastis", *CdE* 46, 1971, 69.
- 23 Sur l'éducation et la formation des médecins de l'époque romaine voir, R.P.J. Jackson, "Roman Medicine: The Practitioners and their Practices", *ANRW II*, 37/1, 1993, 80-101.
- 24 M.-H. Marganne, *ibid.* 22.
- 25 M. Pezin, Fr. Janot, "La pustule et les deux doigts", *BIFAO* 95, 1995, 361-365.
- 26 H. von Staden, *Herophilus, The Art of Medicine in Early Alexandria*, Cambridge, 1989, 26-31.
- 27 Aristote, *Adm. anat.* IX, I, 2 ; A. Debru, "L'expérimentation chez Galien", *ANRW II*, 37/2, 1994, 1722.
- 28 Celse, *Proemium*, 23-24 . M.-H. Marganne, *La chirurgie...*, XIV-XV.
- 29 R.J. Littman, "Medicine in Alexandria", *ANRW* 11,37/3, 1996, 2704 ; M.-H. Marganne, *ibid.*, XVIII.
- 30 A. Debru, *ibid.*, 1721-1722.
- 31 Galien, *De p/odt/s.VI*, 5, 21 . A. Debru, *ibid.* 1723.
- 32 G.E.R. Lloyd, *Les débuts de la science grecque de Thaïes à Aristote*, Paris, 1974, 106.
- 33 Galien nous apprend que, lors de la campagne militaire de Marc-Aurèle contre les Marcomans, les médecins militaires eurent le droit de pratiquer des dissections sur les cadavres des soldats ennemis, V Boubon, "Les oeuvres de Galien pour les

- débutants...Médecine et pédagogie au IIe siècle après J.-C", *ANRW* 11,37/2,1994,1446.
- 34 F. Sanagustin, "Princes et médecins dans l'Orient musulman classique", *Annales Islamologiques* 31, 1997, 176-177 ; je remercie très vivement Ph. Vezie, arabisant, pour m'avoir traduit et commenté ce mot.
- 35 Ps.-Galien, *Intro. sive med.* I, XIV ; M.-H. Marganne, *ibid.*, 26, no 44.
- 36 F.Janot, "Incision de flanc, incision d'immortalité", *Vesalius VII/I*, 2001, 18-21.

## **Sir Thomas Oliver (1853-1942) and the Health of Antimony Workers**

*R I McCallum*

### **SUMMARY**

Imported antimony sulphide ore has been processed in the north-east of England on Tyneside since 1864, first at Gateshead and then at Willington Quay, until the process closed in 2000. The health of antimony workers was a concern of Sir Thomas Oliver (1853-1942) who was distinguished in the field of occupational medicine, particularly in connection with diseases due to lead exposure. Antimony appears to have fascinated him but he underestimated its toxic effects on the process workers in concluding that they were healthy and that there were no industrial hygiene problems in the process. Subsequent investigations have presented a much less satisfactory picture although in recent times the factory atmosphere had been transformed so that Oliver's view had probably come true.

### **RÉSUMÉ**

Le sulfure d'antimoine a été raffiné au nord-est de l'Angleterre depuis 1864, d'abord à Gateshead, plus tard à Willington Quay, jusqu'à la fermeture de la raffinerie en 2000. Sir Thomas Oliver (1853-1942), praticien distingué dans le domaine de la médecine du travail, en particulier les maladies causées par l'exposition au plomb, s'intéressait beaucoup à la santé des ouvriers employés dans le raffinement de l'antimoine. L'antimoine possédait une fascination pour lui, mais en arrivant à la conclusion que les ouvriers se trouvaient en bonne santé, et que le traitement de ce métal ne leur présentait aucun problème d'hygiène industrielle, il a sous-estimé ses effets toxiques sur les ouvriers. Depuis, la recherche médicale a produit des résultats plus inquiétants; cependant, plus récemment l'atmosphère de l'usine a été transformée de telle manière que le point de vue d'Oliver s'est probablement enfin réalisé.

### **INTRODUCTION**

In 2000 the processing of imported antimony ore on Tyneside ceased after over 130 years, 111 years on the same site at Willington Quay, the company having been at one time a major producer in the United Kingdom and in Europe. The health of process workers at this factory has been a matter of concern since the early 20th century and over many years there had been a number of studies both of the workers and of the working environment, beginning with that of a leading physician in Newcastle upon Tyne, Sir Thomas Oliver (1853-1942). He was one of the foremost specialists in occupational medicine in the United Kingdom of the late 19th and first part of the 20th century. He was born in the west of Scotland at St Quivox, near Prestwick in Ayrshire, educated at Ayr Academy, and graduated MB CM with commendation at Glasgow University in 1874, and MD with honours in 1880.<sup>12</sup> Like Thackrah of Leeds in the 19th century or Donald Hunter of London in the 20th century, Oliver was primarily a general physician, with an interest in the effects of work on health, and he was also a university teacher in Newcastle upon Tyne. After qualifying in medicine he worked first as a pathologist in the Glasgow Royal Infirmary, and then in 1875 studied in Paris under Jean Martin Charcot (1825-1893) It seems likely that he maintained and fostered contacts in France by further official visits to factories there, and in Germany, Belgium, and the Netherlands. After a period in a general practice in Preston in



*Portrait of Sir Thomas Oliver painted by T. G. Garvie in 1890, in the University of Newcastle upon Tyne*

*(Courtesy of the late Dr. F.J.W. Miller & University of Newcastle upon Tyne)*

Lancashire from 1875-79, during which he published a translation of a work by Charcot on Multiple Sclerosis (*Sclerosis in Scattered Patches*) in 1876,<sup>3</sup> he moved to Newcastle upon Tyne in the north-east of England as physician to the Royal Victoria Infirmary and the Princess Mary Maternity Hospital. In 1880 he was also appointed a lecturer in physiology in the Newcastle medical school, then part of Durham University (the Cathedral city of Durham is situated 15 miles to the south of Newcastle), and was promoted to Professor in 1889. He became a Fellow of the Royal College of Physicians of London in 1890, and was knighted in 1908. From 1911 to 1927 he was Professor of Medicine, and during the 1914-18 war he helped to raise the Tyneside Scottish Brigade. He was president of the Durham College of Medicine in 1926-1934, and Vice-Chancellor of Durham University from 1928 to 1930. He was also Deputy Lieutenant of Northumberland, and received honorary doctorates from Glasgow, Sheffield and Durham as well as a number of honours from other countries: the Freedom of the City of Boston, USA in 1923; the gold medal of the Assistance Publique in 1924; Chevalier of the Legion D'Honneur by France in 1929; and a Medal of Honour from Bruxelles University in 1920. He became an authority on lead poisoning, a condition of which there were at that time many examples from Newcastle and its area, and made this the subject of a Goulstonian Lecture to the Royal College of Physicians of London in 1891.<sup>4</sup> He was a member of a White Lead Commission in 1892-3, which was largely responsible for the prohibition of female labour in the white lead industry in the UK. In 1898 he took part in an enquiry which resulted in a reduction of the risk of poisoning from lead glazes in British potteries, and he visited similar industries in France and Germany with resulting changes in their practices, which reduced the occupational risks. He also established preventive measures in relation to the making of lucifer matches. He edited and contributed to *Dangerous Trades* in 1902,<sup>5</sup> and wrote *Diseases of Occupations*<sup>6</sup> in 1908. The former is a volume of 891 pages in which Oliver writes substantially on a wide range of subjects. His own copy has interleaved blank pages and is therefore in two volumes and contains his notes for a further edition (which never materialised). Tucked into it are two letters; one from the radical Member of Parliament for Chelsea, and later Forest of Dean, Sir Charles Dilke, dated 25th March 1907, which seems to be a reply to a query from Oliver about his writing on a matter which related to a Departmental Committee with which Oliver was connected either as a member or as a witness; the other is from a Dr Arthur Sansom (1838-1907) who was a

physician to the London Hospital and primarily a cardiologist but lectured on medical jurisprudence and public health. He was also an examiner in medicine to the University of Durham. Oliver was clearly an influential figure both locally in the north-east of England, nationally and internationally, and he is described as an imposing figure at public functions and a conscientious teacher and physician. He was well remembered in Newcastle in the late 1940s but it was clear that he was not universally liked by those who knew him. His portrait in the robes of Vice Chancellor of Durham University (Fig 1) was painted by Thomas Bowman Garvie (b 1859) in 1890, an artist who had studied in Paris, and who exhibited in Morpeth and later Rothbury in the north-east of England, which suggests a local connection. His picture of Oliver portrays a rather arrogant-looking man. It was said that a Dr Parkin of Newcastle who had written an MD thesis on Compressed Air Illness was on holiday in Paris and saw an advertisement for a lecture by Sir Thomas Oliver on the same subject. Parkin slipped into the back of the lecture theatre unnoticed by Oliver and heard a talk based on his thesis but without any acknowledgement of its author. Nevertheless in a contribution in *Dangerous Trades on Diseases Due to Work in Compressed and Stagnant Air* (Chapter LIV; pp 728-748) and in *Diseases of Occupation* (pp 88-114), Oliver shows a practical familiarity with the medical problems of compressed air work and made hand-written notes on two patients with paraplegia after decompression under his care in the Newcastle Infirmary. One patient in 1904 was a 27 year old electrician with a severe paraplegia from working in compressed air on the construction of a pier for the King Edward VII Bridge across the River Tyne at Newcastle.<sup>7</sup> He was one of five with decompression illness and was described by Parkin that year.<sup>8</sup> In the preface to the first edition of *Diseases of Occupation* Alfred Parkin is amongst others thanked for help 'always cordially given', is mentioned as having assisted Oliver in experiments with mice at high atmospheric pressures of oxygen (pp 98-99), and Oliver quotes from his thesis (p 109).

#### THE ANTIMONY INDUSTRY

Antimony is an element which is widespread on the surface of the earth and has been identified in at least 14 different ores, and has even been found in meteorites.<sup>9</sup> Mining for antimony has been carried out extensively in many countries including Britain<sup>10</sup> but there are a limited number of sources which are economic to exploit. Oliver was brought up in a part of Scotland which is well known for its metal mines, mainly

lead. Antimony was mined near New Cumnock, about 25 miles east of St Quivox where he was born and brought up, and also farther east at Eskdale in Dumfriesshire in 1788, but it was not worked there regularly until 1793; by 1798 it had produced 100 tons of sulphuret of antimony yielding about 50% regulus (metal). The major sources of antimony ores processed industrially in the UK in the 20th century have been China, South Africa and South America (Bolivia). The toxicity of antimony and arsenic are somewhat similar although differing in severity. Arsenic, like tin and bismuth, forms an azeotrope or solid solution with antimony and is therefore difficult to separate." Antimony has been known for centuries from the Sumerians who made pure antimony metal,<sup>9</sup> to the Egyptians, who used antimony eye ointments, and occasionally in cosmetics and for decorative objects. Alchemists from the 14th century were obsessed with antimony because it could be used to purify gold and by analogy cleanse the human body, so that it had for them religious and mystical significance, an aspect revived by the anthroposophists under Rudolf Steiner in the 20th century. The development of printing in the 15th century must have boosted the demand for antimony metal as printing type contained antimony to make the lead harder and because it tends to expand on cooling, thus giving a more precise impression. Johannes Gutenberg (1400-1468), who probably invented printing, was a goldsmith and one can assume that he would be very familiar with the properties of antimony from its use in the purification of gold. The traditional method of treating antimony ore (usually stibnite, the sulphide Sb<sub>2</sub>S<sub>3</sub>) is to roast it with charcoal or coke and collect the volatile oxide fume (Sb<sub>2</sub>O<sub>3</sub>) from which, by further refining, a pure antimony metal can be obtained. Agricola (1494-1555) described and illustrated the separation of silver from gold using antimony sulphide, in which the antimony alloys with the gold and settles.<sup>12</sup> Historically, apart from medicinal use which was popular for over 500 years, antimony has been a constituent not only of printing-metal but also of lead acid batteries, pigments, an opacifier under glazes and enamels (the white oxide), and in the present day it has been used widely as a flame retardant in fabrics. Large-scale industrial production began in the early 19th century.

#### ANTIMONY PROCESSING IN THE NORTH EAST OF ENGLAND

It is not certain when the smelting of antimony began in north-east England but it was probably at least by 1864.<sup>13</sup> The process carried out at Willington Quay (Howdon), about 14 miles west of Newcastle, by

Cooksons became eventually the only such plant in Britain. The name Cookson was established in the early 18th century primarily in glass manufacture.<sup>14</sup> William Isaac Cookson moved from this into chemicals by 1844, setting up a company to make pigments, especially Venetian Red (ferric oxide) in 1847, and refining antimony for pigments. Lead manufacture was added in 1851 when a locomotive works was bought at Howdon, Willington Quay to produce lead and silver, and the antimony and colour works was moved there from Gateshead in 1871. Production of antimony was more profitable than Venetian Red, which depended on by-products of antimony smelting. In the late 19th century 'chilled shot', which was lead hardened by addition of antimony, was a very successful product. Antimony metal and compounds were produced continuously at Willington Quay from 1890, with a gap between 1920 and 1936 when the metal market became dominated by imports from China so that only a little oxide was made. The invasion of China by Japan allowed the process to be restarted and by 1973 Willington Quay was the largest producer of antimony products in the world and the company had factories in Italy and Spain as well.

#### OLIVER AND THE ANTIMONY WORKS

It is not surprising that Oliver was interested in antimony. Not only was the industry on his own doorstep but it is likely that his childhood background had already familiarised him with lead and antimony mines in Ayrshire and Dumfriesshire. But his view of the possible deleterious effects of the process on the health of the workers seemed to vary from time to time. He first visited the Willington Quay antimony works sometime before 1902<sup>5</sup> and described it as one of the largest in the country. At this time it was processing ore from Japan. He concluded that there were no ill effects on the process workers from doing this work apart from skin rashes, which led him to recall the medical use of antimony tartrate to produce a pustular eruption as a counter irritant. In *Dangerous Trades* (1902) however he classes antimony with other chemical substances such as arsenic and barium as very poisonous (p 592). In *Diseases of Occupation* antimony is given a brief mention as a metallic poison but this is in an Addenda section (pp 454-455) which has been added to the third edition of 1916 and not in the main text under 'Metallic Poisons, Dust Fumes etc'. In 1916 Oliver commented that little was known of the effects of antimony on the workmen exposed to it.<sup>6</sup> He describes antimony smelters as working 'with their shirts open in front and with the sleeves rolled up, and as they perspired freely, there appear on the front of the chest and arms crops of



pustules which are extremely irritating. The men also suffered occasionally from headache, abdominal pain and constipation.' Other symptoms attributed to antimony at that time were colic, distaste for food, loss of appetite and small mouth ulcers with salivation; dizziness, loss of weight, albuminuria and glycosuria. He thought that in some respects the symptoms resembled lead poisoning. These comments were presumably from his own observations at the works at Willington Quay and do not suggest that the work was without hazards. In 1933 in a short paper in the British Medical Journal<sup>15</sup> Oliver was concerned primarily with antimony oxide (Fig 2), large-scale commercial production of which had started only after the First World War, and its possible toxicity. He remarks that the smelting of antimony ores had never been regarded as a dangerous occupation, and that antimony spots were the only malady from which antimony process workers suffered. However he found that the production workers looked a year or two older than their stated ages, were swarthy in appearance with thin chest walls, but had no respiratory disease, and that they had low blood pressure for manual workers. He concluded surprisingly that the men were healthy and that there was no industrial hygiene problem or risk, and that this applied to workers in other industries who handled antimony oxide. While he notes that no special hygiene precautions were taken at the works, nor did they appear to be necessary, overalls and respirators were provided, but that the regular use of the latter was difficult to enforce. The amount of skin irritation was small perhaps because the work was at normal temperatures, antimony spots being more severe in warm surroundings. Six men were employed as packers, all of whom had many years of service with the company, four having been smelters. Antimony was detected in the faeces but not the urine of these men. Sir Thomas Legge, the first medical inspector of factories in Britain, followed Oliver in 1934<sup>16</sup> in remarking that the industrial use of antimony was limited and that it is 'not known to have injurious effects' although he did refer to local skin irritation (described as antimony lumps or pocks) as being similar to arsenic rash. Oliver quotes Legge as giving evidence to the Home Office Departmental Committee on Paints that antimony oxide was only a mild irritant and could not be described as a poison at all. Both Legge and Oliver are somewhat ambiguous in their comments and unconvincing as to the lack of medical problems arising from the work. It is interesting that even in 1951, Mr C T Cooper then the manager of the antimony works, was concerned about a skin rash 'antimony spots' which was troubling the process workers.

## THE OCCUPATIONAL HAZARDS OF ANTIMONY PROCESSING

The toxic hazards of refining antimony ores were described by Ulrich Ellenbog<sup>17</sup> physician to the Bishop of Augsburg from 1470 to 1478, in what has been called the first work on occupational hygiene. It was written in 1473 but not published until 1524. In it he refers to 'the poisonous evil vapours and fumes of metals...' used by goldsmiths and others when treated by fire. Antimony he describes as of a 'cold nature' like mercury, silver, and litharge so that their vapours chill the man who works with them. Ramazzini (1633-1714) was aware of the hazards of smelting antimony and described it as affecting the lungs of workers making antimony glass (oxysulphide).<sup>18</sup> Not only had antimony processing a bad reputation from at least the 15th century, but in spite of Oliver's reassuring account of the 1930s it was far from being a healthy working environment. In fact even in the 1940s the working atmosphere could be described as Dickensian. Until the 1960s processing the ore has been associated with high levels of dust in the factory air, which contaminated the skin of process workers and could easily be inhaled.<sup>19</sup> Sore eyes, upper respiratory tract and gastrointestinal irritation, nose-bleeds, perforation of the nasal septum (probably due to arsenic) and discolouration of the teeth had been observed in process workers. Arsenic has been present in small quantities in some ores but has been used at times in much larger amounts in the manufacture of an antimony/arsenic alloy. Antimony spots, an irritating skin rash affecting the trunk and limbs, which is much worse in warm weather, have been a major nuisance but quickly resolve on ceasing exposure for a few days. A form of simple pneumoconiosis with few or no symptoms and usually no measurable lung function deficit, but none the less undesirable, has been common in the past. More recently the antimony process has been associated with an excess of lung cancer and antimony compounds have been under suspicion as carcinogens. It seems more likely that the lung cancer is related to the use of arsenic in making alloys. Since the 1960s there has been a continuing epidemiological survey to monitor the prevalence of lung cancer in this group and it is possible that recently the risk was no longer present.<sup>20</sup> It is clear that Oliver's description of the antimony workers' health has to be taken in its chronological context. Working conditions, whatever the industry, and the level of health, were at the time generally poor by present day standards, not only in an industrial area such as the north east of England, but elsewhere in Britain. The antimony process was until recently a very dirty one and dust from the sulphide ore and from the oxide which

was produced, covered everything including the men. Changes in the process over the last 40 years, beginning in the 1950s, have been radical so that the industry had been transformed to the point at which it was controlled by men in white coats and electronic devices, with a corresponding reduction in numbers of process workers and in exposure to dust.

#### THE INDUSTRY TODAY

In spite of a decline in its use in batteries and print metal, antimony and its compounds still have important applications. The oxychloride (Sb<sub>2</sub>O<sub>2</sub>Cl<sub>2</sub>) is widely used as a flame retardant in which the reaction with [H] and [OH] radicals reduces the rate of flame propagation so that the treated material will smoulder rather than burst into flames. The belief that antimony in flame-proofed cot furnishings was a cause of cot deaths has been shown to be entirely without foundation. Other uses are in semiconductors, pewter, Babbitt metal, and as pigments in paints and lacquers, glass and pottery. Since Thomas Oliver's day not only had the factory environment seen a major change for the better but the process itself had changed and modern occupational hygiene practices and automation had virtually controlled the dust. Sir Thomas Oliver's over-optimistic view of the safety of the antimony process had at last been realised at Willington Quay.

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## THE HEALTH OF ANTIMONY OXIDE WORKERS

SIR THOMAS OLIVER, M.D., F.K.C.P.

The smelting of antimony ores, and the production of antimony metal, has been practised in England for at least two centuries, but the commercial production of pure grades of antimony oxide for pigmentary and similar purposes has been in operation only since the war. Antimony trioxide ( $\text{Sb}_2\text{O}_3$ ) is now manufactured in large quantities, and this material, which is in the form of an extremely finely divided white powder, is much used.

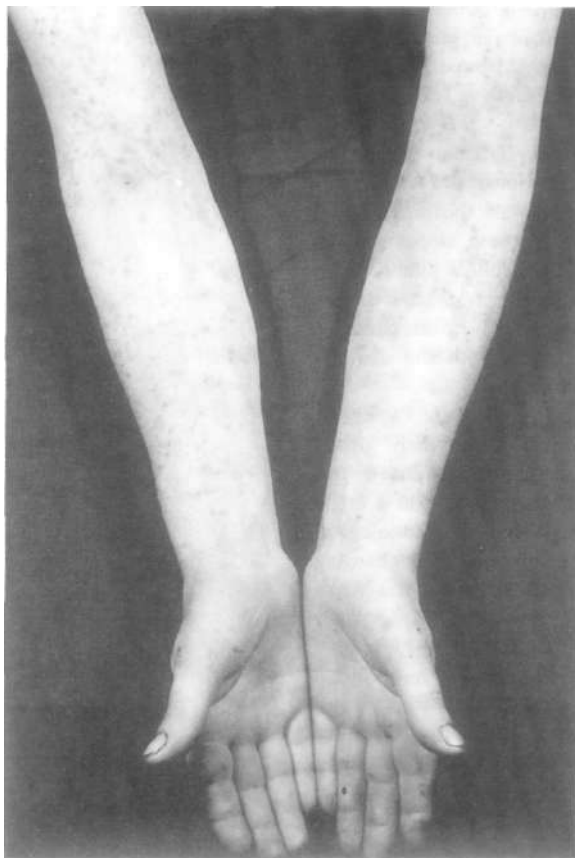
The smelting of antimony ores has never been regarded as a dangerous occupation, and the only malady from which antimony smelters suffer (and then only occasionally) is an irritation of the skin, which results in blotches or minute pustules—sometimes extremely unpleasant owing to itchiness. The parts of the body most affected are the front and back of the forearms, the front of the chest, and the epigastrium. The irritation appears to be caused when dust falls on a skin damp with perspiration, but it is noteworthy that many workers are not affected, and that in this connexion personal cleanliness is an important factor. It is found that the irritation invariably disappears completely in the course of a few days if the worker ceases to have contact with antimony dust. In view of the increasing use of antimony oxide in industry, it was felt desirable in the interest of the worker to ascertain whether or not the handling of this material demands special hygienic precautions. Feeling that the conditions of exposure of workers engaged in the manufacture of the material are likely to be more severe than those involved in its use, I made an inquiry into the health of some workers who had been engaged in its manufacture for a period of thirteen years which period covers the introduction of this material on a commercial scale in England. Shortly after its manufacture was commenced the question was raised as to the possible toxic

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*Oliver's Lancet article on the health of antimony workers. 1933;  
a personal reprint signed by him.*



*Antimony process worker in the 1960s showing the oxide fume from a furnace. Conditions were later markedly improved.*



*Antimony spots in a process worker; 1958.*

# ***The First Nobel Peace Prize Henry Dunant (Founder of the International Red Cross) and his 'Memoires'<sup>9</sup>***

*Raimonda Ottaviani, Paolo Vanni, M. Grazia Baccolo, Elizabeth Guerin and Duccio Vanni*

## **SUMMARY**

To celebrate the memory and work of Henry Dunant, on the centenary of the presentation of the first Nobel Peace Prize, rightly awarded to Dunant for his having founded the institution of the International Red Cross, this paper presents the reader with some insights into his activities and sufferings, his trials and tribulations, and the hope and strength of his character. The ceaseless efforts made by Dunant to bring about the Institution which today represents Hope for so many suffering people who are silent victims of wars and atrocities, are fleetingly presented. The authors' intention is to give due recognition to Dunant for his work, and to highlight the humanity and the moral and social worth of the face behind the International Red Cross.

## **RÉSUMÉ**

Pour célébrer la mémoire et le travail de Henry Dunant à l'occasion du centenaire du Premier Prix Nobel qui lui a été, à juste titre, attribué pour avoir fondé la Croix Rouge, cet article présente au lecteur les activités, les souffrances et les difficultés ainsi que l'espoir et la force de caractère de cet homme.

The note-books containing the 'Memo/res' of Henry Dunant, the founder of the Red Cross, were discovered some sixty years following his death (1910).

These autobiographical writings remained hidden for years in the Dunant family granary, after Maurice, his nephew, had inherited the innumerable note-books which filled his uncle's hospital room at Heiden. These books were subsequently put away in the stores of the Public Library at the University of Geneva and forgotten about.

In the 1970's the Institut Henry Dunant, wishing to compile a 'bibliography' of the founder of the Red Cross, engaged someone to search for all the documents published by H. Dunant. It was in these circumstances that, at the bottom of three boxes full of publications, 102 note-books were found, containing notes and details related to various works, together with notes, citations and references collected by Dunant with the obvious intention of writing his *Memoires*.

Bernard Gagnebin, Professor of the Arts Faculty at the University of Geneva, together with other researchers, studied, collected and presented the material from about 30 different note-books in a single text, trying to give the *Memoires* a certain chronological order and interpret them without substantially changing the stories and recollections. They divided the work into 34 chapters, using nine chapter headings originally thought of by Dunant.

Only some of these manuscripts have been definitively edited in the past, by Prof. Rudolf Muller, who was working on the origins of the Red Cross<sup>1</sup>. Of these chapters, written in the third person, Maurice Dunant, Henry's nephew, published extracts in 1918 under the title *The beginnings of the Red Cross in France, with diverse unpublished details*.



*Henry Dunant à l'époque de la fondation de la Croix Rouge*

The History of Medicine research group at the University of Florence, under the leadership of Prof. Paolo Vanni, in co-operation with the Red Cross International Muséum, has translated these *Mémoires* into Italian from the original French, and annotated them with explanations and comments on their historical context. This was to celebrate the memory and work of Dunant on the centenary of the presentation of the first Nobel Peace Prize, rightly awarded to Dunant for his having founded the International Red Cross.

While doing this, the authors discovered an unpublished fragment of nineteenth century history, which refers to Dunant's mystical crisis in the aftermath of the battle of Solferino<sup>2</sup> and the Paris Commune. These are pages which are rich in details experienced or described by journalists of the period, collected and narrated by Dunant with a zeal to relate the truth through simplicity and rigour. Dunant's love of writing was poured into these pages at different stages of his life, but especially at its end, when, elderly and embittered, he whiled away his lonely and solitary days.

In these *Mémoires* his aim was to demonstrate that he, not others, was the founder of the Red Cross. He had the idea and saw it through and did not want to be forgotten. Unfortunately, both circumstances and the people of his time gave him a foretaste of what the future had in store. Following his bankruptcy, the lack of interest and unbelievable indifference on the part of those who knew him, isolated him and distanced him more and more, even from his dearest friends.

From the few manuscripts, (in comparison to the large number found in the library at Geneva), a complete work emerges. The chronological succession of the events narrated is not perfect and the writing style, which is in the first person, alternating at times with the third person, can disorientate at first. Nonetheless, the lively and spontaneous content cannot fail to involve the reader.

Henry Dunant was born on 8th May 1828, in Geneva, into a well-to-do Calvinist family. In his *Mémoires*, he recounts his happy childhood, his father's estate outside Geneva and his grand-parent's lovely estates (one of his grandfathers was mayor of Avully, the other was the director of the hospital in Geneva), with the gardens, fruit trees and feasts, (his mother was always worrying about the children having indigestion):

'... and so, arriving at Avully, after two hours in the carriage the five children ran off in all directions and the fun began. This was only the beginning, because Granny had an excellent cook and her liver pâté, her cakes were real miracles/wonders...'

His parents always loved to help the needy. They

opened up the gates of the estates in Geneva so that they too could enjoy the fresh air and the beauty of the garden. They used to take their children to visit those in prison at the pénal colony in Toulouse.

Dunant was an extremely sensitive person with a noble heart and he had had an excellent education. He relates that by the age of ten, he already felt that he was a little aristocrat, in the positive sense of a man that was good in the aristocracy of that period.

Even during his childhood he always felt compassion for the unfortunate. He was deeply disturbed by those he saw chained and working in hard labour at the Toulouse pénal colony and deplored their state. His mother, a pious and devout woman, developed his sense of brotherly love and went with him to visit the poor and sick. This was at a time when ideas were ripening against slavery.

The writings of the American H Beecher Stowe, author of *Uncle Tom's Cabin*, published in 1852 and translated into several languages, was in circulation at the time. Furthermore, the charitable figure of Florence Nightingale, heroine of the Crimean War, shone brightly before him. Dunant, the boy, was to meet both of these young women and to remain fascinated by them.

Subsequently, when he became a member of the Society of Charity, he was to sacrifice his free time in order to visit the needy, the infirm and those in prison. Later he was to gather friends around him to study the Bible and to re-awaken 'God's will' in young people. These Thursday meetings quickly became the 'Christian Movement of Young People'. Today we know that, through his action and his correspondence, and even more so, with his famous circulars, he contributed to the foundation of the Universal Alliance of the Union of Young Christians.

At the age 25, he was employed at the bank of an exchange-agent in Geneva and, shortly afterwards, was sent on a temporary mission to Algeria by the Geneva Company for the Silk Colonies. At once his inventive spirit set to work. He proposed making Algeria fertile and industrialised, and encouraged the acquisition of land concessions in the province of Constantine (NE Algeria). He wanted Algeria to become the granary of France. In order to achieve this, hundreds of hectares of land were necessary as well as docks, stores and mills but the banks were deaf to his requests. Dunant stayed in Tunisia for a few weeks and this sojourn enabled him to discover a fascinating land in which no slavery existed, whereas it continued to be a reality in the United States of America.

His *Information on the Regency of Tunisia* turned into a violent diatribe against slavery in America. The book calls

on Man's conscience to put an end to the horrible commerce and the transgression of Man's natural rights.

Having received no reply to his request for funds for his project, he decided to ask the Emperor Napoléon III directly for support. He wrote an extravagant book in his honour entitled *The Empire of Charlemagne restored or the Holy Roman Empire rebuilt by Napoléon III*, then he went to the north of Italy to meet the Emperor. In June 1859 he arrived in the public square of Pontremoli and met the Prince Napoléon and his Chief of Staff. Following this he got into his rented carriage and headed for Castiglione, where over the next few days, he was horrified to bear witness to one of the bloodiest battles of the century.

'On the 25th June 1859, the sun revealed one of the most terrible sights that one could imagine... Some 20,000 injured people lay in agony on the battlefield at Solferino without anyone to tend them or care for them or offer any medical help whatsoever.'

He wrote *A Memory of Solferino* so as to reawaken 'the conscience of the Great' to the problem of the injured on the battlefields of the world.

'The corpses of men and horses were scattered ail over the battlefield. They lay under the wheels, in the ditches and trenches, in the ravines, in the bushes, on the plains and, above ail on the outskirts of the town of Solferino... The crops were destroyed, the harvests down-trodden, the hedges ripped out and the orchards lain waste. From time to time one came upon blood baths; the towns and villages were deserted and bore ail the signs of musketry, bombs, grenades, howitzers...'

He made himself useful by transporting and assisting the injured in the days following the battle. He, a citizen of Geneva, having come upon the battle scène by chance, a stranger to the battle itself, was to remain stunned by the horror that he witnessed, and as a result, to dedicate his entire life the task of organising and assisting the injured in battle: he who is injured cannot be considered an enemy, given his/her defenceless state, he can only be considered from a humane point of view and, hence, neutral. With référence to the soldier, pointless aggression and insult is added to injury.

'À San Martino, un officier de bersagliers, le capitaine Pallavicini est blessé, ses soldats le reçoivent dans leur bras, ils le portent et le déposent dans la chapelle où il reçoit les premiers soins, mais les Autrichiens, momentanément repoussés, reviennent à la charge et pénètrent dans cette église: les bersagliers, trop peu nombreux pour résister, sont forcés d'abandonner leur chef, aussitôt des Croates, saisissant de grosses pierres qui se trouvent à la porte, en écrasent la tête du pauvre capitaine dont la cervelle rejaillit sur leur tuniques.'<sup>4</sup>

Dunant's greatness lies in the fact that once he had conceived his plan, cleverly and with diplomacy, he pushed forwards, working towards the spreading of his ideas as well as organising and having them legally recognised: the injured soldier is simply a person in need of assistance; if he is not helped, then he is destined to die on the battlefield amid atrocious suffering and totally abandoned.

In *A memory of Solferino*, Dunant points out that the condition of the injured and wounded is tragic:

'La figure noire de mouches qui s'attachent à leurs plaies, ceux-ci (les blessés) portent de tous côtés des regards éperdus qui n'obtiennent aucune répose; la capote, la chemise, les chairs et le sang ont formé chez ceux-là un horrible et indéfinissable mélange où les vers se sont mis; plusieurs frémissent à la pensée d'être rongés par ces vers, qu'ils croient voir sortir de leur corps, et qui proviennent des myriades de mouches dont l'air est infesté. Ici est un soldat, entièrement défiguré, dont la langue sort démesurément de sa mâchoire déchirée et brisée; il s'agit et veut se lever, j'arrose d'eau fraîche ses lèvres desséchées et sa langue durcie; saisissant une poignée de charpie, je la trempe dans le seau que l'on porte derrière moi, et je presse l'eau de cette éponge dans l'ouverture informe qui remplace sa bouche. Là est un autre malheureux dont une partie de la face a été enlevée par un coup de sabre: le nez, les lèvres, le menton ont été séparés du reste de la figure; dans l'impossibilité de parler et la moitié aveuglé il fait des signes avec la main, et par cette pantomime navrante, accompagnée de sons gutturaux, il attire sur lui l'attention; je lui donne à boire et fais couler sur son visage saignant quelques gouttes d'eau pure. Un troisième, le crâne largement ouvert, expire en répandant ses cervelles sur les dalles de l'église; ses compagnons d'infortune le repoussent du pied parce qu'il gêne le passage, je protège ses derniers moments et recouvre d'un mouchoir sa pauvre tête qu'il remue faiblement encore.'<sup>5</sup>

In the days following the battle of Solferino, as if 'spurred on by an *intenor* force' he came up with the idea of a form of assistance at an international level which could act as host to the injured, and which would have an internationally recognised symbol capable of protecting both the injured soldier and the help-bringing party, as well as the inhabitants and the innocent bystanders and victims of battle-zones. It was with this in mind that he wrote *Un souvenir de Solferino* (*A Memory of Solferino*). Having printed and distributed his book, he set to work making sure that the mighty of the time got a copy of it. He sent it to the reigning houses of Europe and to ail those who could support and help him in his

effort. Three humanitarian societies based in Geneva came to his aid.

In his *Mémoires*, Dunant lists in painful détail:

'On a time-scale, first was the vénérable Mr. Rivier-Vieusseux of Lausanne, président of the Waldensian Society for Public Utility; then came Mr Gustave Moynier, président of the Geneva Society for Public Assistance, and lastly, the Society for the Progress of Social Sciences of Neuchatel, in the persons of Professor Frédéric Godet and Mr Jean de Merveilleux, secretary of the same Society.'

In February 1863, at the Geneva Society for Public Assistance, which had G. Moynier as its président, the 'Commission of Five' was set up. This was made up by four citizens of Geneva - Moynier, Appia, Maunier and Dunant and the général président, Dufour.

Dunant reports:

'In the name of and under the authority of the 1863 International Assembly, the Geneva Commission made up of five members, became an International Committee....'

In the same year, Dunant went to the Berlin Congress of Statistics which was held from 6-12th September 1863 and asked his Dutch friend, Dr Basting, to read a short summary of his ideas in German, taking advantage of a session during the congress which was devoted to the topic of 'Military and Civilian Health Statistics' and was attended by numerous doctors. Many of these joined immediately and he was able to get a copy of his *A Memory of Solferino* to the ministers and reigning houses which were not familiar with it, including the houses of Spain, Bavaria and Saxony.

After publication of his work, from 1863 on, a huge activity began, related to assemblies, meetings, conférences etc. He never avoided dinners and meetings of high society, where he could speak to ministers and nobles who were of importance and in a position to further his ideas in the aristocratic courts of Europe.

Following the Berlin Congress on Statistics, the Geneva Committee organised the first diplomatic Conférence (26th October 1863), in which the right to neutrality was affirmed solely for those bringing aid to the injured. The Geneva Committee then organised an international congress. After the preparatory meetings, came the International Conférence, with Resolutions which recognised the neutrality of the injured, of the helpers or relief workers and the inhabitants of battle-zones.

'The assembly deliberated in seven sittings, from 6-22nd August 1864. Initially, the vénérable General Dufour declared the Conférence open and explained the purpose behind the Congress, in an éloquent speech

which was filled with passion. He made it clear that the delegates of the governments were to examine the promises expressed during the 1863 meeting, in relation to the neutrality of ambulances, médical personnel and the injured. Many delegates, since they did not have full powers, requested them during the course of the Conférence and thus at the end of it, the plenipotentiary delegates of twelve nations were in a position to sign the Geneva Convention.

In La Commune, on 22nd August, when proceeding to the peaceful act of the signing of this humanitarian treaty, the city of Geneva was in tumult and restless on the occasion of an élection ...'

The Geneva Convention was a real success for Dunant. He did everything in his power to achieve his objective of keeping the two basic strands of the initiative: assistance for the injured military personnel who belonged to the National Red Cross Committees and the légal part undersigned by the international powers.

Dunant said

'The two initiatives, that of the Red Cross and that of the définition of the diplomatic treaty, which have the same origin, are intimately linked from the outset, during their development and as they continue to be sought after, in a simultaneous fashion.'

Henry Dunant was received by King John of Saxony, and was to prove a valued guest in the ruling House of Prussia. He was invited by the Empress Eugénie, by Napoléon III, by prelates and bishops such as Father Giacinto<sup>6</sup>, the Bishop of Paris and the Abbot of Madeleine<sup>7</sup>... he was also présent in many drawing rooms with such renowned ladies as the Countess Borromeo or assisted by the Countess Gasparin and, later by Madame Kastner.

Henry Dunant spread his ideas incessantly and with unceasing effort, to such a degree that in 1867, he found himself completely ruined financially. He completely forgot his business affairs, which ended up totally out of control. Speaking of himself in the third person he says that

'He dedicated all his time, all his resources to the international task of the Red Cross and he entrusted his (business) activities to an unscrupulous partner.'

In 1867, the Geneva Crédit Bank, which had financed the undertakings in Algeria, brought a légal action against Dunant, which led him to bankruptcy. The sentence of the Civil Court of Geneva appeared on the front page of the 'Geneva Newspaper' - quite an unusual event - accusing him of being responsible for the bankruptcy as well as having, knowingly, duped his colleagues. For the remainder of his life, Dunant was to protest his



innocence against this sentence, never ceasing to repeat, 'I did not dupe my colleagues, it is I who have been tricked!' But his life and more especially his work, was at a turning point. For him, it was the beginning of a hard life, and misery and persecution did not abandon him ever again until his death in Heiden, in 1910. The following extract from his autobiography, presented here in verse form, is quite clear:

*Mémoires* Ch XXV MISERE

'J'ai connu ces temps misères de la vie de Paris, dont j'avais la dans enfance et ma jeunesse de récits pittoresques faits par des romanciers; descriptions que je considérais alors comme des choses fantastiques.

Moi aussi, après mes revers de fortune vivant de la vie des plus humbles et supportant sortes de privations J'ai été de ceux "qui dévorent dans la rue par petites bouchées un pain

d'un sou  
cache dans leur poche"

J'ai été de ceux qui noircissent leurs habits d'une plumée d'encre et blanchissent leur col de chemise avec de la craie. Comme ceux pauvres hommes qui mettent du papier dans un chapeau usé râpé

devenu trop grand  
et dont les souliers prennent l'eau  
J'ai été de ceux qui se voient

le crédit coupé à la gargote où ils dînent  
et la clé

du garni où ils logent  
refusée

le soir en rentrant  
faute de pouvoir payer le terme du loyer

J'ai dû passer une fois  
deux nuits de suite  
à la belle étoile

n'osant pas rentrer dans mon garni  
(situé dans l'un des plus modestes quartiers de Paris où j'ai habité trois ans),  
faute d'être en mesure de solder mon terme

et  
afin de pouvoir me reposer et sommeiller un peu  
car j'étais accablé de fatigue  
je n'eus d'autre ressource que  
de me rendre  
dans la salles d'attente  
de l'une des grandes gares,

ouvertes toute la nuit  
à cause des nombres trains de nuit  
qui arrivent et qui partent de Paris...'

To understand the meaning of failure in the 19th century Calvinist world, we can read what Fernand Grignon wrote in *Henry Dunant; L'épopée de la Croix Rouge ou l'Aventurier de la charité* (Paris Gallimard 1943): 'When a man makes an affront on the world of Finance, there is no respite for him. His moral ruination lasts as long as he lives. Calumny, bitter hostility, wickedness, maliciousness and calculation, all that the Bible attributes to Satan is put into action against him. In Geneva, what is moral is safe, in so far as Finance is safe. Beyond this unwavering norm, nobody is safe. Even the Church Pastors bow their Theology before the shield.'

When the Franco-German war exploded in June 1870, the author of *In Memory of Solferino* was in Paris, secretary of the Providential Society, organised by him to assist the suffering military during the terrible cold of that very severe winter.

The pages which he wrote about La Commune de Paris and the Siège of Paris are among the most interesting and original in the *Mémoires*. Once again he bore witness to the horrors of war and once again he tried to alleviate suffering, drawing close to the warring parties to try to make them respect the humanitarian principles of the Geneva Convention<sup>8</sup>. The following passage illustrates these horrors in a startling manner:

'Mardi 23 Mai

Dans la rue d'Hautefeuille; "Rends-toi" crient plusieurs soldats à un tout jeune homme - seize ans à peine "Non! Non!" répond-il, et en continuant à se défendre, il se fait tuer sur les marches de l'escalier extérieur d'une église. Un autre de quinze ans, un vrai gamin de Paris nargue les soldats qui vont le fusilier...et tombe pour ne plus se relever.'

Collecting fragments scattered through a dozen notebooks, Gagnebin was able to reconstruct the weekly horror, day by day, together with its heritage of horror, its ruins and rubble and the ruddy sky.

Despite his precarious financial condition, Dunant tried to continue his efforts. In 1872, in England, he made a speech on the conditions and treatment of prisoners of war (the subject of the Third Geneva Convention in 1929) and the High Court of Arbitration. In England he met Madame Kastner, an exceptional lady who helped him to survive and became his friend. However the persecution to which he was continuously subjected, once again took the upper hand. He found himself homeless, wandering through the streets of Paris and sleeping in railway stations.

At long last, in 1895, a Swiss journalist George Baumberger, found him in Heiden at the 'Paradiso' Hospice. Thanks to this discovery made by the Press, Dunant was once again famous and the world could not but award him the first Nobel Peace Prize, in 1901, jointly with Passy.<sup>9</sup>

With the money from the Nobel Peace Prize, Dunant was to finance works of charity; the rest of his money he was to leave to those few friends who had helped him towards the end of his life. His real worth, which lay in his interior qualities, he was to leave to mankind. His philanthropic nature had founded the Red Cross, a shining light in the midst of civilisation and which today is renowned throughout the world.

The *Mémoires* of H. Dunant, according to Gagnebin, may not be a perfect example of 'historical correctness'; nonetheless one cannot deny its merit in bringing to light for the general public, the noble figure of the founding father of the Red Cross (10, 11)

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- 4 Dunant H, *Un Souvenir de Solferino* CICR Publications Geneva 1950-1990 p 21
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- 6 Père Hyacinthe Loyson , a famous preacher who took up the cause with much sympathy.
- 7 Mgr. Georges Darboy, Archbishop of Paris and L'Abbé Deguerry, curé de la Madeleine who were executed during 'la semaine infernale', May 1871
- 8 Cima A, *Tutti Fratelli* : (Video tape) Edited by the Red Cross International Muséum. Castiglione della Stiviere (Mn). 1999
- 9 Frédéric Passy (1822-1912) French economist, studied law but abandoned it for journalism and the study of economics and problems of peace. In 1867 he founded the International League for Permanent Peace, later known as the French Society of the Friends of Peace. He served as its general secretary until 1899, when, in association with Sir William R Cremer he founded the Inter-Parliamentary Union of Arbitration. He was a member of the chamber of deputies from 1874-1899. His best known work is *Historique du mouvement de la paix*.
- 10 Candaux JD *Pour une nouvelle lecture des Mémoires d'Henry Dunant*, 1978, Revue Suisse d'Histoire, 28 fasc. 1/2. p 1-25.

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#### Translations of French text

'At San Martino, Captain Pallavicini, an officer of Bersaglieri, was wounded; his soldiers lifted him in their arms and carried him to a chapel where he was given first aid. But the Austrians, who had been momentarily repulsed, returned to the charge and forced their way into the chapel. The Bersaglieri were not strong enough to resist them and had to desert their commander, whereupon the Croats picked up heavy stones from the doorway and crushed the skull of the poor Captain, whose brains spattered their tunics.

With faces black with the Aies that swarmed about their wounds, men gazed around them, wild eyed and helpless. Others were no more than a worm-ridden inextricable compound of coat and shirt and flesh and blood. Many were shuddering at the thought of being devoured by the worms, which they thought they could see coming out of their bodies (whereas they really came from the myriads of flies which infested the air) There was one poor man, completely disfigured, with a broken jaw and his swollen tongue hanging out of his mouth. He was tossing and trying to get up. I moistened his dry lips and hardened tongue, took a handful of lint and dipped it in the bucket they were carrying behind me, and squeezed the water from this improvised sponge into the deformed opening that had been his mouth. Another wretched man had had part of his face - nose lips and chin- taken off by a sabre cut. He could not speak and lay half-blind, making heart-rending signs with his hands and uttering guttural sounds to attract attention. I gave him a drink and poured a little water on his bleeding face. A third, with his skull gaping wide open, was dying, spilling out his brains on the stone floor. His companions in suffering kicked him out of their way as he blocked the passage. I was able to shelter him for the last moments of his life and I laid a handkerchief over his poor head which still just moved.'

#### Mémoires Ch XXV MISERY

'I came to know those times full of the misery of Paris life;

I had read of them in my childhood and youth, picturesque descriptions and dramatic accounts written by novelists; descriptions which, at the time, I thought of as the output of the imagination.

I too, when the tide of my good fortune turned, lived the life of the most humble

putting up with all sorts of deprivations.  
I became one of those "who devour morsels of bread in  
the street,  
a coin's worth, hidden in their pockets."  
I too, have been one of those who blacken his clothes  
with ink  
and whitens his shirt collar with chalk.  
Just like those poor fellows  
who stuff paper into an old worn out and ruined hat,  
which has become too big,  
or into their shoes which let the water in.  
I have been one of those who finds his credit cut where  
he dines,  
and in the evening, the key of the B and B where he  
stays, denied him  
at his return because he has fallen foul of his payments.  
These same fellows often fall asleep without the light  
and their heating gives off more smoke than heat.  
They ruin their stomach with food which is little and  
far-between, and is not of good quality.  
The hardest thing to accept, even if it is a material loss,  
when one has simple but delicate desires, is to see one's  
own clothes destroyed without being able to replace  
them

Once, I even had to spend two nights, one after another  
beneath the stars,  
not daring to return to my B and B  
(in one of the humblest neighbourhoods of Paris where  
I lived for three years)  
because I couldn't pay my rent,  
and, so as to rest and doze a little,  
since I was completely exhausted,

all I could do was  
betake myself into the waiting rooms of one of the  
biggest train stations  
which was open all night  
given the many trains which arrive in and leave Paris'

#### CH XXXI THE WEEK OF HELL

Tuesday 23 May

In Rue d'Hautefeuille:"Give yourself up!" several soldiers  
shouted to a very young fellow-just sixteen years old,  
"No! No!" he replied, and while continuing to defend  
himself, he got himself killed on the steps leading up to  
the entrance of a church.  
Another fifteen year old, a real Parisian urchin dared the  
soldiers who were going to shoot him ... he fell down  
never to rise again.'

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1867. Catastrophe ! ruiné !

Ce fut pour moi une catastrophe ; et, cette catastrophe arriva dans les meilleurs jours de la vie de l'homme, c'est-à-dire que je n'avais pas encore tout-à-fait quarante ans. Je n'étais pas <sup>même</sup> entré dans ma trente neuvième année quand tout croula autour de moi. Tout s'assombrit ; et sans perdre complètement courage, je me sentis soudain défaillir. Je perdais cette élasticité, ce ressort, cette confiance, que j'avais possédée jusqu'alors, pour tomber dans un noir chagrin.

1867. Catastrophe ! Ruined !

It was a catastrophe for me, a catastrophe striking during a man's best years, that is, before I was quite forty years old. My thirty-ninth year had not even begun when everything around me crumbled and darkened. Although I did not lose courage entirely, I suddenly felt myself giving way. I lost my former flexibility, my spring, my energetic confidence, and became fretful and morose.

From the "Memory" the page regarding the bankruptcy

## La Thériaque : Médicament et Antidote

Dusanka Parojcic, Dragan Stupar, Milica Mirica

### RÉSUMÉ

La thériaque était une ancienne préparation complexe inventée comme médicament contre les morsures de serpents, de chiens et d'autres animaux venimeux. Plus tard elle est devenue un antidote contre tous les poisons connus. L'étymologie du mot (grec : *theriake*, latin : *theriaca*, français -*thériaque*) tire ses origines du mot grec *theriakos* signifiant « relatif aux bêtes sauvages ». Mithridate VI Eupator, roi du Pont, a créé la première formulation de la thériaque. Souverain habile mais cruel, il était très intéressé par la toxicologie, ayant constamment peur d'être empoisonné. Au 1<sup>er</sup> siècle avant J-C, Andromachus, médecin personnel de l'empereur Néron, a amélioré la formule de l'*Antidotum Mithridaticum* en introduisant la chair de serpents que l'on croyait être le meilleur antidote contre les morsures de serpents et en augmentant la proportion de l'opium. Cette formule, nommée *Theriaca Andromachi Senioris*, contenait 64 substances parmi lesquelles plusieurs substances minérales et végétales, des poisons, la chair et le sang d'animaux mélangés avec du miel en une forme d'électuaire. Plus tard, la thériaque est devenue un médicament contre tout, une panacée universelle contre toutes les maladies. Au Moyen Âge la thériaque est devenue une préparation officinale entrant dans les pharmacopées et les manuels officiels. La thériaque la plus connue et la plus chère était celle de Venise. Vers la fin du XVIII<sup>e</sup> siècle seulement la thériaque est exclue de l'usage médical.

### SUMMARY

Theriac was an ancient multi-ingredient preparation; originating as a cure for the bites of serpents, mad dogs and wild beasts, it later became an antidote to all known poisons. The name theriac (*treacle*), (Greek *theriake*, Latin *theriaca*, French *theriaque*) was derived from the Greek for wild beast - *theriakos*. The first formula was created by Mithridates VI, King of Pontus, a skilful ruler but a monster of cruelty, who, living in such a fear of being poisoned, took a great interest in toxicology. In the 1st century AD, Nero's personal physician Andromachus improved the formula of *Antidotum Mithridaticum* by adding flesh of vipers, which was commonly believed to be the best antidote against snakebite, and by increasing the proportion of opium. It became known as *Theriac of Andromachus*, and contained 64 ingredients including various minerals, herbals, poisons and animal flesh and blood, all combined with honey in the form of electuarius. Later it became the cure-all medicine which, accumulating all the simples into one form, was supposed to be a universal panacea against all diseases. In the Middle Ages this famous electuarius became a patent medicine and entered official dispensaries and pharmacopoeias. The most famous and expensive Theriac in Europe was that of Venice. It was not until the 18th century that it was excluded from medical use.

### INTRODUCTION

L'intérêt pour les poisons et pour la toxicologie est vieux comme le monde. Il existe peu de poisons aujourd'hui connus qui n'ont pas été utilisés par les civilisations antiques et au Moyen et Extrême-Orient. Avec l'apparition de la polypharmacie, c'est-à-dire de la croyance que le médicament composé de plusieurs substances médicinales peut guérir diverses maladies, est apparue l'idée d'un antidote universel pouvant protéger de plusieurs poisons. C'est ainsi qu'on a inventé le plus célèbre parmi tous les antidotes universels connu sous nom de thériaque comme le meilleur et le plus sûr moyen contre tous les poisons.<sup>1</sup>

### L'ORIGINE DE LATHERIAQUE

La thériaque est née en Grèce antique (grec : *theriake*, latin : *theriaca*, français : *thériaque*). L'étymologie du mot est très complexe et elle tire ses origines du mot grec *theriakos* signifiant « relatif aux bêtes sauvages ». En réalité c'est la dénomination du médicament contre les morsures des animaux venimeux.<sup>2</sup> Certains lexicographes disent que le mot *tiryak*, utile non seulement contre les

animaux venimeux mais aussi contre les plantes létales, est composé de deux mots : *tyrya*, animal venimeux et *qā*, plante létale.<sup>3</sup>

La particularité de la thériaque était de toujours comprendre trois ingrédients indispensables : la chair séchée de vipères en forme de pastilles, l'opium en forme de poudre fine et le miel qui donnait à la thériaque une consistance molle d'électuaire. La préparation des pastilles à base de chair de vipères devait respecter certains critères quant à l'espèce de vipère, son habitat, la période de la chasse etc. La préparation comprenait d'abord le dépouillement, puis une longue cuisson de la chair associée à d'autres ingrédients et le séchage à l'ombre. La masse ainsi séchée et refroidie devenait assez dure pour qu'on puisse la découper en petits morceaux. Outre les pastilles de chair de vipères, *trochisà viperini*, il existait encore deux substances composées indispensables : les pastilles de scille, *trochisà Sàllitià*, et les pastilles d'Andros, *confectio hedrychroi*. Ces pastilles étaient composées de quatre groupes de substances simples qui se préparaient séparément et qui l'on réunissait après. La

dénomination pastille, c'est-à-dire *trochisci*, s'appliquait à une forme de conservation d'une composante du médicament qui pouvait être mélangée à d'autres préparations.

#### LATHERIAQUE COMME ANTIDOTE

Nicandros de Colophon (vers 275 avant J-C), médecin auprès du roi de Pergame Attale, est considéré comme le créateur de la thériaque. Il a écrit deux poèmes *Theriaca* et *Alexipharmaca*. *Theriaca* est un poème de 958 lignes consacré aux poisons et aux morsures d'animaux sauvages et de serpents. En 630 lignes, *Alexipharmaca* décrit les effets de 21 poisons.<sup>63</sup>

Bien que l'idée originale ait pu être de Nicandros, selon les écrits de Pline l'Ancien, c'est à l'instigation de Mithridate VI Eupator, roi du Pont (132-63 avant J-C) que la thériaque est née. Il était intéressé par la toxicologie car il voulait créer un médicament universel qui pourrait le garder de toutes les maladies, même de tous les poisons. Pour cette raison il faisait des expériences sur les prisonniers. Il les empoisonnait quotidiennement par la nourriture et par les boissons et après il essayait de les sauver par les antidotes. Il choisissait les substances qui donnaient les meilleurs résultats. C'est ainsi que la thériaque connue comme *Theriaca Mithridaticum* ou *Antidotum Mithridaticum* fut créée. Elle était composée de 54 poisons et antidotes d'origine minérale, animale et végétale.<sup>6</sup> Mithridate faisait des essais sur des animaux, le plus souvent sur les canards du Pont, car ils étaient les plus résistants. Il les nourrissait d'arsenic et de chair de vipères qu' à l'époque on croyait être venimeuse, et après il buvait leur sang pour s'immuniser.<sup>8</sup> Il prenait lui-même quotidiennement des doses minimales de poison pour les rendre inoffensives pour l'organisme. Cette méthode a été plus tard nommée mithridatisation et a été pratiquée dans beaucoup de cercles royaux et princiers. La recette de sa formulation a été trouvée par les soldats romains qui l'ont emportée à Rome à Andromachus l'Ancien, d'origine Crétoise, médecin de l'empereur Néron. Il a amélioré cette formule en introduisant toute une variété de substances parmi lesquelles la chair séchée de vipères. Le nombre total de substances était de 64 et cette nouvelle préparation a été nommée d'après lui *Theriaca Andromachi Senioris*.

On croyait que la thériaque s'améliore avec l'âge. Les Arabes pensaient que la thériaque restait jeune jusqu'à vingt ans, qu'elle était pleinement efficace entre vingt et quarante ans et qu'ensuite son activité commençait à décroître et qu'elle ne valait rien après soixante ans.

Galien de Pergame (*Galenos*, 129-199/200), illustre médecin, pharmacologue et philosophe romain, a popularisé l'utilisation de l'opium à Rome antique en

créant la célèbre thériaque contre la peste. Toute la Rome antique l'a cru quand il a dit : « Tous ceux qui la prennent le matin, sont protégés pendant toute la journée. » Galien a modifié la formule d'Andromachus en divisant le nombre total d'ingrédients, entre 65 et 75 selon les textes, en sept groupes correspondant chacun aux poids de chaque ingrédient.<sup>3</sup> Il a créé une thériaque célèbre pour l'empereur romain Marc-Aurèle qui souffrait de maux de tête.<sup>12</sup> Son oeuvre *De Antidotis* et deux petits traités, *De theriaca ad Pisonem* et *De theriaca ad Pamphilianum* (l'un rédigé à l'intention de Pison et l'autre adressé à Pamphilius) présentent les références principales, pour la plupart des scientifiques arabes ou byzantins.<sup>8</sup> Dans la *Thériaque à Pison* Galien explique pourquoi la thériaque a été inventée et quelles sont les raisons pour lesquelles sa formule d'un antidote simple a pris une forme complexe. Il a trouvé la réponse chez les Anciens qui supposaient que tout médicament s'adapte à chaque organisme. Pour se protéger de venins végétaux, mais aussi de nombreux poisons animaux, ils ont commencé à multiplier les ingrédients de la thériaque. Pourtant, les médicaments simples ou antidotes ne gardent pas leurs propriétés et leur efficacité et leur qualité changent quand on les mêle. Galien interprétait ces propos par une force bénéfique qui en tire tout ce qui est le plus utile.<sup>3</sup>

#### L'IMPORTANCE DE LATHERIAQUE DANS LE DEVELOPPEMENT DE LA PHARMACOTHERAPIE ARABE

Le passage des connaissances sur la thériaque de la culture européenne à la culture islamique s'est réalisé assez tôt par l'école d'Alexandrie où beaucoup de médecins byzantins s'intéressaient aux poisons. Le plus célèbre parmi eux était Paul d'Egine (*Paulus Aegineta*, 625-690) auteur de *Hypomnema*, encyclopédie de médecine en sept volumes, traduite en arabe au IX<sup>e</sup> siècle. Elle représente un lien important entre la pharmacothérapie gréco-romaine et arabe. Le cinquième volume de cette oeuvre est entièrement consacré aux poisons et aux antidotes. La thériaque y prend une place importante.<sup>13</sup> La toxicologie dans le monde arabe se développait à la suite de Dioscoride et de Galien mais aussi des sources indiennes. Ainsi le *Livre des poisons et des thériaques* en cinq volumes de Shânak a été traduit du sanscrit en arabe. Ce livre décrit les poisons, les manières de les détecter dans la nourriture, dans les breuvages et sur les vêtements et les antidotes.<sup>3</sup>

Presque toutes les autorités médicales arabes s'occupaient de la thériaque en élaborant leurs propres conceptions et théories variant quant à la composition, à la préparation et à l'utilisation. Selon Ricordel, les

premiers traités sur la thériaque écrits en arabe sont apparus dès le IX<sup>e</sup> siècle. Ils se rapportaient surtout aux descriptions exhaustives des ingrédients de substances simples et de drogues. Leur mesure et la technologie de la préparation de cet électuaire complexe étaient transmises oralement dans des cercles restreints de médecins.

Ibn Djuldjul (*Abu Dâwûd Sulaymân Ibn Hasân Ibn Djuldjul al-Andalusî*, 943/944 - 994), père de la pharmacologie en Espagne, était un médecin connu de Cordoue et pendant un certain temps médecin personnel du calife Hishâm II. Il était aussi auteur de trois oeuvres importantes du domaine de la pharmacie. L'une entre elles est consacrée à la thériaque. En prenant les formulations de la thériaque de Galien dans les oeuvres *De antidotis* et la *Thériaque à Pison* comme fondement, Ibn-Djuldjul a donné sa propre formulation de cet électuaire dans son livre *Propos sur les médicaments de la thériaque*. Il a lui-même administré et confectionné la thériaque. Sa thériaque était composée de 75 ingrédients y compris le miel et le vin. Ce fait est très important si nous savons que l'utilisation du vin était contestée dans de nombreux documents arabes car elle s'opposait au Coran.<sup>5</sup>

Ibn Rushd, plus connu sous son nom latin Averroes (*Abu al-Walîd Muhammad ibn Ahmad ibn Rushd*, I 126 - I 198), était un philosophe andalou, mais il a aussi acquis la formation de médecin. Cependant, on pense qu'il a peu pratiqué la médecine et la pharmacie. Il a écrit plusieurs commentaires et traités philosophiques ainsi que quelques oeuvres médicales surtout théoriques. Une parmi elles est le *Discours sur la thériaque*. Il a accepté la position de Galien en ce qui concerne le but d'utilisation de la thériaque. Mais il est allé encore plus loin. Il a essayé d'expliquer pourquoi la thériaque comme antidote universel est moins efficace qu'un antidote spécifique d'un certain poison. Il se rendait compte de tous les paramètres pharmacocinétiques aujourd'hui connus : l'antagonisme, la synergie, la potentialisation et la tolérance. De son raisonnement logique nous pouvons conclure que bien qu'il n'ait pas préparé la thériaque, il connaissait très bien sa composition. Il a compris que les substances qui se trouvent mélangées changent leurs propriétés. La force de la thériaque est beaucoup plus grande que celle des drogues entrant dans sa formulation et c'est là que se trouve toute sa magie. En tenant compte de la nature de la thériaque entre le médicament et le poison, plus forte que le premier, plus faible que le second, Ibn Rushd considérait, contrairement à Galien, que l'emploi répétitif et préventif de la thériaque était mauvais pour la santé. Il le prouvait par le fait que les médecins de califes ne

prescrivaient pas à leurs illustres malades l'emploi habituel de la thériaque.<sup>3</sup>

Avicenne (980 - 1037) dans le Livre V de son *Canon de médecine* a classé la thériaque parmi les préparations composées. Son utilisation est thérapeutique et prophylactique. La « thériaque terrible » était décrite comme la préparation la plus efficace contre les morsures de serpents, les piqûres de scorpions, les empoisonnements, diverses maladies comme : les maladies bilieuses, la lèpre, les maladies du coeur, les déséquilibres mentaux et l'épilepsie. Il a décrit d'autres formulations de la thériaque, comme l'électuaire de chair de serpent qui permettrait de résister aux poisons animaux s'il était pris quotidiennement. Selon Avicenne la thériaque peut améliorer la perception sensorielle, augmenter le désir sexuel, arrêter les hémorragies, faciliter le travail des reins et de la vessie et stimuler l'appétit.

De 65 substances au total, il n'y en a qu'une qui est minérale (FeSO<sub>4</sub>), toutes les autres étant des drogues végétales. On y inclut aussi le miel et le vin. Cette formulation de la thériaque ne contient pas la chair des vipères, mais dans sa composition entrent l'opium et les pastilles de scille.<sup>6</sup>

#### LATHERIAQUE COMME MÉDICAMENT AU MOYEN ÂGE ET PENDANT LA RENAISSANCE

La gloire de la thériaque augmentait lentement, mais sans cesse. Son utilisation contre les poisons et venins s'est associée à celle contre les maladies. C'est pour cette raison qu'on augmentait le nombre de ses ingrédients. Comme préparation officinale elle a trouvé sa place dans presque toutes les pharmacopées et dans tous les manuels du XIII<sup>e</sup> au XIX<sup>e</sup> siècle. *Dispensatorium Valerii Cordi* (1546), première pharmacopée officielle de la ville de Nuremberg, contenait quatre formulations de la thériaque y compris la thériaque de Mithridate.<sup>4</sup> La préparation de la thériaque était très compliquée et était considérée comme un vrai art des apothicaires. Après la séparation de la médecine et de la pharmacie par l'édit de Salerne en 1240, la préparation des médicaments était surveillée par les pouvoirs publics tandis que la confection de la thériaque suscitait un grand intérêt, entre autre car elle coûtait cher. La thériaque la plus appréciée venait de Venise, des pharmacies célèbres *La tête d'or*, *La Cloche* et *L'Atruche*. Elles ont, dès le XVII<sup>e</sup> siècle, commencé une sorte de production magistrale de cette préparation qui portait des marques correspondant aux noms des pharmacies comme garantie de la qualité. Cette préparation se vendait partout en Europe. Très connue était aussi la

thériaque de Nuremberg. Selon le décret de 1442, les pharmacies étaient obligées de posséder une quantité suffisante de cette panacée universelle.<sup>915</sup> Selon Schelenz<sup>16</sup> c'étaient les premiers médicaments avec des noms garantis produits dans les pharmacies. Leur apparition s'était produite deux siècles avant le commencement de la production des médicaments en usine. Au temps de grandes épidémies dans beaucoup de villes en Europe, la thériaque était un des médicaments des plus recherchés. Même des vendeurs de drogues et des guérisseurs fabriquaient différentes falsifications de cette préparation parce que le contrôle était presque impossible.<sup>8</sup> Pour cette raison on a commencé à préparer la thériaque en public, très solennellement, en présence de souverains, d'aristocrates et de citoyens. Seulement les meilleurs apothicaires pouvaient être choisis pour cette cérémonie qui se déroulait à un moment précis de l'année tandis que la fabrication était surveillée par les membres du collège médical.<sup>914</sup> On croyait qu'il était nécessaire de garder la thériaque dans les pots joliment ornés, en or, en faïence ou en porcelaine. Saladino d'Ascoli (15<sup>e</sup> siècle) accordait une grande attention à ce sujet en expliquant que les pots en étain ou en plomb n'étaient pas convenables parce qu'ils n'étaient pas stables et pouvaient changer la composition de la préparation.<sup>17</sup> En Turquie la thériaque (*madzum*) était spécialement préparée pour le sultan, l'aristocratie et les classes riches. Elle contenait de l'opium de Smyrne et de la poudre de pierres précieuses : rubis, émeraudes, coraux et perles. Elle était préparée une fois par an pendant l'équinoxe de printemps et elle s'appelait *Dzevahir-madzum*.<sup>6</sup> Cette coutume s'est retenue jusqu'au début du XIX<sup>e</sup> siècle. La qualité de confection de cette préparation a été préservée grâce aux peines sévères appliquées à ceux qui y ajoutaient des substances de mauvaise qualité ou qui en omettaient quelques-unes. La dernière grande préparation publique de la thériaque a eu lieu en Allemagne à Nuremberg en 1754.<sup>15</sup> La confection de la thériaque à Paris a duré jusqu'en 1790.<sup>19</sup>

#### LA CRITIQUE ET L'EXCLUSION DE LA THÉRIAQUE DES PHARMACOPÉES

Nicholas Culpeper (1616- 1654) fut le premier qui ait critiqué sérieusement la thériaque.<sup>20</sup> Il a déterminé cet électuaire comme une « terrible combinaison de tout » ce qui était une remarque critique sur la polypharmacie en général. L'influence la plus importante fut celle de l'oeuvre de William Heberden (1710 - 1801) de Cambridge, *Antitheriaca : An Essay on Mithridatium and Theriaca*, publiée en 1745 à Londres comme une critique sévère de la polypharmacie.<sup>21</sup> Selon Heberden certains

ingrédients de la thériaque étaient mystérieux et complètement inconnus à la pharmacie de l'époque. Leur fonction était mythique plus que thérapeutique. Ce n'est qu' onze ans plus tard que pour la première fois la thériaque ne figurait pas dans une pharmacopée officielle, celle d'Edimbourg (cinquième édition de *Pharmacopoea Collegii Regii Medicorum Edimburgensium* de 1756), étant considérée comme médicament obsolète. Selon le professeur Cowen, tout le mérite de cette action revient à John Clerck. Il était l'un des auteurs de la nouvelle édition et président du Collège Royal de Médecine (*Royal Collège of Physicians*). Comme il avait une grande influence, il a osé soulever cette question.<sup>19</sup> En suivant cet exemple d'autres pays et villes ont commencé à mettre la thériaque hors texte de pharmacopées générales et spécialisées.<sup>16</sup> La thériaque était officinale sous les noms d'*Electuario aromaticum cum opio* et d'*Electuario Theriaca* dans les premières pharmacopées Serbes de 1865 et de 1881 (*Kratki sastav farmakopeje za Srbiju, Pharmacopoea Serbica Editio Prima*). Elle a été confectionnée conformément à la pharmacopée autrichienne de 1855.<sup>2223</sup>

#### CONCLUSION

L'idée première d'utilisation de la thériaque était liée à son utilisation contre toute une gamme de venins végétaux et animaux. Plus tard, l'augmentation du nombre d'ingrédients a fait de la thériaque un médicament universel - une panacée à l'utilisation thérapeutique et prophylactique. Cette préparation polyvalente dont l'histoire est étroitement liée à celle de la pharmacie et de la médecine a toujours gardé son nom malgré les utilisations les plus diverses. Sa formule d'antidote a été développée en une formulation complexe de médicament. Ce fait était acceptable pour l'Antiquité et l'époque classique qui ont été souvent perturbées par les épidémies de choléra, de peste et de fièvres. Pourtant la thériaque a plus tard atteint une gloire sans fondement qui a duré presque deux millénaires.

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# **The UNESCO Concept of Heritage and Teaching of the History of Medicine and Pharmacy in the Karol Marcinkowski University of Medical Sciences in Poznan**

Anita Magowska

## **SUMMARY**

This article points to the possibility of the creative use of the UNESCO concept of heritage in the teaching of the history of medicine and pharmacy. This enriching teaching concept is of great importance, with 2002 being proclaimed the UNESCO Year for Cultural Heritage. The article discusses long-term experiences gathered at the Karol Marcinkowski University of Medical Sciences in Poland.

## **RESUME**

Cet article montre la possibilité de l'application créatrice de la conception de l'UNESCO pour le patrimoine culturel dans l'enseignement de l'histoire de la médecine et de celle de la pharmacie. Cette conception a une grande importance étant donné que l'année 2002 a été proclamée L'Année des Nations Unies pour le Patrimoine Culturel. L'article parle des expériences qui ont été réalisées dans l'Académie de la Médecine Karol Marcinkowski en Pologne.

*'A man of to-day lives by making use of dodges, by means of which he deceives himself pretending to believe that the world surrounding him is very simple and feasible to an arbitrary description. Nevertheless, his real consciousness forces him to confirm that the real world, corresponding to the whole present time reality, is extremely complex, and challenging. However, he is afraid, as an ordinary man of to-day is very weak, in spite of his blustering gestures. He is afraid of opening to his real world that would require much from him (...)*

*Therefore, a historical meaning is to be attributed to reintroduction to the University its basic tasks, that is the enlightening of a man, implanting the full culture of the current epoch into him, a bright and accurate disclosure with its whole magnitude of the contemporary world, the world in which the life should first become rooted in order to achieve full authenticity'.*

The tasks of universities, as described by Jose Ortega y Gasset many years ago, were still relevant in 2002, the year proclaimed as United Nations Year for Cultural Heritage. The mission, derived from the Middle Ages, when university education was limited to the teaching of a profession, aimed at transferring ideas which enabled an understanding of the world, i.e. philosophical and theological knowledge, rhetoric, arts, etc. Contemporary university education is distinguished by an opposite approach to the medieval one, as it is predominated by specialist professional teaching, while its cultural aspects remain only indirect. However, it is culture, inclusive of the consciousness of a common heritage, that provides conditions for the rooting of a man in his time and allows full development of his personality.

However, the area of common heritage is complicated and includes material and non-material culture, as well as

resources of natural environment. Therefore, definition of the heritage variety within the framework of university education is a difficult task requiring appropriately differentiated conceptions.

Among detailed concepts, the Polish experiences in developing consciousness of the heritage within the framework of medical and pharmaceutical studies deserve particular attention. As an illustration I would like to present the example of the Karol Marcinkowski University of Medical Sciences in Poznan in Poland.

Poland was one of the first countries where the history of medicine and the history of pharmacy were introduced as a compulsory item in the curriculum, appreciating the fundamental meaning of developing a consciousness of heritage in medical and pharmaceutical studies. This was done by 1920, with the original character of the proofs of material culture, fundamental to the history of medicine and pharmacy, contributing to the fact that teaching of the subject joined the values of transferring professional knowledge and presenting the cultural heritage.

The original concept, conceived many years ago by Wladyslaw Szumowski (1875-1954), in the interwar period, at the Polish school of History of Medicine, consisted of connecting the history of medicine with the history of philosophy and civilisation. Polish historians of pharmacy also applied this concept.

Development of consciousness of the heritage was one of the tasks of the Faculty of Medicine of the Poznan University initiated in 1920, as the Department of History and Philosophy of Medicine had been established as the first scientific entity. It extended and widened former traditions, creating a suitable climate that served as a basis for the activity of all the other

departments. It provided a climate of candidness and a tolerance for philosophy of life and political liberality, as the history of medicine and pharmacy was affected by achievements of different nations, religious beliefs, and political opinions. It should be emphasised that Prof. Adam Wrzosek (1875-1965), who took up the Department of History and Philosophy of Medicine, was at the same time the first organiser and Dean of the Poznan Faculty of Medicine.

The outbreak of World War II did not stop the development of medical and pharmaceutical studies in Poznan. Teaching students in a full range of pharmacy continued in secrecy, without interrupting tuition in the history of medicine and pharmacy. This occurred, however, in 1950, after separation of medical academies from the universities, formerly dealing with medical and pharmaceutical studies. These subjects had been considered as a sign of idealism, unnecessary in a materialistic philosophy of life.

Teaching of the history of medicine and pharmacy was only restored in 1957, when Poland underwent a political revival. It continues now although considerably reduced as compared to its beginnings. The former Department of History and Philosophy of Medicine became the Department of History of Medical Sciences, dealing up to the present time with tuition in an appropriate range with all specialisations in the Karol Marcinkowski University of Medical Sciences in Poznan.

During lectures and seminars of the history of medicine and pharmacy the students become acquainted with monuments of material culture, visiting museums, examining slides or selected prints. Particularly valuable illustrative materials for teaching history of medicine and pharmacy are ancient pictures, drawings and old manuscripts. They enable the acquisition of knowledge in the range of the history of culture in an attractive manner. Lessons are held in part therefore, in the museum of the Karol Marcinkowski University of Medical Sciences, where the objects and other archives are collected as evidence of its traditions. Lessons are also held in the Poznan Museum of Pharmacy, where students become acquainted with the artefacts of pharmaceutical history, as well as the Archaeological Museum, where they acquire knowledge of ancient medicine. Direct contact with the museum collections gives an idea of the dimension of the progress in civilisation and shows the need for careful protection of the cultural heritage.

In addition, students of the Pharmaceutical Faculty of the Karol Marcinkowski University of Medical Sciences undertake a Master's thesis in the sphere of history of pharmacy. As an example, a project of 1995 might be

mentioned, entitled 'Pharmaceutical collections in the National Museums in Poznan'. The student was charged with becoming acquainted with the collections of the National Museum in Poznan and its departments with a view to separating the exhibits to give evidence of material culture related to medicine and pharmacy. The student made use of consultations with specialists in the history of arts, ethnography and archaeology, extending her professional knowledge by a wide understanding of cultural topics. She discovered, catalogued and made comments on many interesting but forgotten museum items related to medicine and pharmacy, which had been hidden in storerooms because of the lack of appropriate exhibition area.

The students' attitude to such an approach to the cultural heritage should be considered. Sometimes students are pessimistic as to whether the lessons develop practical medical skills; that only a humanistic aspect is necessary. However, such an opinion only appears at the beginning of the course. As lessons proceed, doubts disappear and the students show a growing positive and creative attitude. The students presenting selected problems at the seminars usually find some additional material among them, such as pharmaceutical equipment, ancient chronicles, photographs and books. Many presentations make use of the students' own slides or Power Point. One of the students has even developed a didactic game consisting of the organisation of the dates, scientific facts and related comments. The lessons are appreciated as interesting and necessary.

In summary, the UNESCO-inspired concept of putting forth awareness of our heritage through the history of medicine and pharmacy is worthy of notice. The idea connects, in a very interesting way, professional knowledge and consciousness of culture. In effect the conception appears to be a skilful realization of the mission of universities, outlined by J. O. Gasset, with reference to medical and pharmaceutical studies.

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## **Features from Member Countries**

### **The State of Medical History in Australia**

Peter J. Tyler

It is probably an exaggeration to say that medical history is flourishing in Australia, but there is certainly a small band of enthusiasts. Total membership of the various societies devoted to studying or discussing the discipline is no more than five hundred, which is not a large proportion from a population exceeding nineteen million. Five of us attended the International Congress at Istanbul in September 2002, and greatly enjoyed the experience - particularly the opportunity to meet with our colleagues from what we regard as exotic places.

One of the difficulties that always confronts Australian scholars was described by one of our leading historians, Geoffrey Blainey, as 'the tyranny of distance'. This is not simply reflected by the time it takes us to get to Europe or America, but also within our own country where the people are scattered around the fertile fringe of the continent, living in six more or less autonomous states and two federal territories. Although the nation federated over a century ago, there are still vestiges of rivalry between the States and their institutions such as universities and hospitals, to say nothing of governments.

The Australian Society of the History of Medicine has about 350 members scattered throughout the country, but concentrated in the major metropolises of Melbourne and Sydney. As in any association, members come from a variety of backgrounds. Some are medical practitioners, some are historians, some are nurses or other health professionals. This core is supplemented by interested lay people. Because of the diversity of members' experience, the focus of Society activities is not on narrowly medical issues, but all aspects of health care in an historical context.

The principal activity of the Australian Society is publication of the refereed journal *Health and History* twice a year. There is also a quarterly newsletter *Medical History Australia*. This contains short articles, book reviews, conference reports and topical news items. National conferences take place every two years, rotating through each of the State capital cities, and occasionally at offshore venues such as Norfolk Island. Usually we manage to attract a handful of overseas speakers or delegates, although the majority of papers are presented by local residents. The Ninth National Conference will be held in Melbourne in April 2003 with a theme of 'Exploring the boundaries of medicine'.

The States of Victoria and New South Wales both have active medical history societies with more than a hundred members each. Regular lectures or seminars are arranged, on topics aimed at catering for the diverse interests of members, and these societies also publish small newsletters. Some members of the State societies are also involved with the Australian Society of the

History of Medicine, although there is no formal link between the three associations. In the less populous States and Territories, the band of devotees is too small to sustain a viable permanent organisation, but in some cases local branches of the Australian Medical Association have special interest groups that arrange occasional events with an historical theme. Pharmacy and nursing professionals have similar gatherings.

Unfortunately, there is no incumbent Chair of Medical History in any of the thirty-nine universities at present. Still, there are a number of academic staff with a strong grounding in the discipline, so that several of the metropolitan universities can offer elective courses in this field to students of medical humanities or the social sciences, including history and philosophy of science.

Then, of course, we must not forget the myriad of authors, academic and amateur, who have written books or articles on aspects of medical history.

These include overviews of epidemics and particular diseases as well as biographies of eminent doctors or nurses. And there would scarcely be a hospital in the country that has not had its history recorded assiduously.

These range from detailed scholarly texts on major city teaching hospitals, to typewritten leaflets about remote four-bed rural hospitals. Many of these works are published to commemorate a particular event, such as the centenary of the hospital.

Because of a fashionable interest in public history, museums have become a popular entertainment medium. Some of this energy is diverted into medical history. In Sydney, the Powerhouse Museum of science, technology and decorative arts employs curatorial staff to collect, preserve, interpret, and display material related to health and medicine. The museum mounted a major exhibition dealing with contraception that attracted widespread interest, and this was followed in 2001 by an exhibition on women's experience of childbirth a century ago. Following display in Sydney, these exhibitions toured to regional areas throughout the State. Established with grants from the Wellcome Foundation, the University of Melbourne has a Medical History Museum that includes the complete Savory and Moore pharmacy from Chapel Street, London. In 2001 this museum organised a public exhibition related to the diagnosis and treatment of tuberculosis. Also in Melbourne is the recently refurbished Museum of Victoria, with an interesting historical display on the theme 'The Body', which includes material connected with Australia's several Nobel Prize winners in biomedical sciences.

Various State health departments have mounted

travelling exhibitions devoted to changes in public health practice since the 1880s, probably more as an exercise in public relations than an educational tool. For teaching purposes, medical faculties naturally have extensive museum collections of clinical specimens; in some instances they collect surgical instruments and diagnostic equipment as well. These collections have a certain historical value, and in some universities are accessible to the public. Many public hospitals have developed small museum collections related to their own origins, often at the instigation of dedicated volunteers. For example, Sydney Hospital recently refurbished a nineteenth-century building to commemorate the introduction of Nightingale nursing in Australia. Documents, costumes, furniture and other artefacts from this period are now displayed in the original setting. Finally, it should be noted that many local or regional museums throughout the country hold at least a few items of interest to medical historians. To cater for the people involved in all this activity, whether paid or voluntary, there is a lively Health and Medical Museums Society.

Specialist libraries are rarer, but rich in their holdings. The Royal Australasian College of Physicians in Sydney has a History of Medicine Library with around 50,000 volumes, built around a nucleus of substantial collections bequeathed to the College by benefactors such as Sir Edward Ford. In addition to the University of Melbourne

museum mentioned earlier, their Brownless Medical Library holds a valuable collection of rare books. Also in Melbourne, the Royal Australasian College of Surgeons maintains a significant historical collection based on the Cowlshaw bequest. Some of the other specialist professional Colleges have their own historical collections. Finally, the National Library of Australia in Canberra, the various state reference libraries and some of the university libraries are always a good source for historical researchers, particularly for manuscript material relating to their particular part of the world. Some of the tyranny of distance can be alleviated by the system of reciprocal inter-library loans that most libraries provide for their readers.

Our main concern for the future is nurturing a new generation of medical historians. The existing societies are largely composed of people in the closing stages of their professional careers. Apart from a few postgraduate students, few young people are attracted to this *milieu*. In a materialist age, the rewards of medical history remain intangible.

Dr Peter Tyler is an independent professional historian working in Sydney. His particular field of interest is public health and the control of infectious diseases in Australia. He is currently writing a book on the anti-tuberculosis campaigns in the mid-twentieth century. Dr Tyler is an executive member of the Australian Society of the History of Medicine.

# ***A model from Turkey on the history of the health sciences as seen from the point of view of scientific societies and their contributions - The Guest House Society***

Prof. Dr. Berna Arda  
Ankara University, School of Medicine  
Deontology Department

The existence of societies is known from olden times and they may be informal or semi-academic in character. As well as famous societies such as those of London and Vienna, there are also some other societies which can be found only in the writings of the social historian or in personal records.

Until the 17th century all societies which included scientific work were part of Philosophy. However, at the same period the first distinctions arose. Isaac Newton's work the 'Philosophiae Naturalis Principia Mathematica' was an attractive example of this separation. Andrade emphasised, at the beginning of his book on modern physics, that in older times philosophy had been used as a general term. He also noticed that physics was until recently regularly described in schools and universities in Scotland as 'Natural Philosophy'<sup>1</sup>. There are many essays on the progress of the various scientific societies in different periods of history. The significant increase in the appearance of scientific knowledge in the 17th century became the subject of books such as 'The Role of Scientific Societies in the Seventeenth Century', and the book named 'The Royal Society Concept of Creation' which appeared in more recent time<sup>5</sup>. We find in papers of the Royal Society of London where Russell and Whitehead are among the participants, that analytic philosophy is created or the foundations are reinforced. On the other hand, the Vienna Society was an institution which was concentrated around mathematicians and historians, with names such as Moris Schlick, Karnap, and Popper. It could be stipulated that the rejections which were based on Karl Popper's ideas concerning the non-verification of scientific knowledge and the hypothetico-deductive structure of science, were very significant for the evolution of the Vienna Society. It is also worth remembering the Bourbaki Society founded in the Sorbonne, and named after the first letters of the young mathematicians' names who were its founders. As Westfall underlines, while the reality that organisation of scientific initiatives took place in the informal societies coming out of universities, he also stated that due to the appointment of Rectors by the Church, the secular structures of universities were questionable and even these were closed places where discussion was not allowed.

There is no doubt that many descriptions can be made for today's science. Each of these descriptions aims to set a frame which determines limits from a

different point of view or different level. If we accept the accumulation of scientific knowledge as a social event, we may also notice 'exceeding the borders' as one of the main parameters which brings progress and makes science universal. What causes the establishment of such societies and maintains their existence? Is it the encouragement of brainstorming and the action of mutual influences without limits? Perhaps, because of these main characteristics, we can perceive the societies as different from the associations and similar to the open group dynamics in group therapies. As Prof. Gökseel always reminds us, it is necessary to prevent the societies from deviating from their aim. However it is also important to remind ourselves that a similar society existed from the 18th century, having among its members Von Humboldt, and also Sauerbruch who was surgeon to Hitler and to some of his generals. This society was abolished in 1944, after some of the generals, who were members of the society, attempted to assassinate Hitler.<sup>2</sup>

Formations with the name of 'societies' can be found not only in the West but also in the East. In Abbasid's period, the 'Ihvan- I Safa (Decent Brothers Organisation)' whose treatises were published without signature, is an example. There are also examples in the Turkish Republic's period: these were semi-social, semi-art, semi-culture societies such as 'Wednesday Meetings of Meydan Palas', and 'Strasbourg Society', managed by Ahmet Cevad Emre. There was also the 'Kullük Society' which was in Beyazit. Their names should certainly be remembered in the social history of the forties and fifties.<sup>2</sup>

How did Guest House Society thought, that established a formation in which it is possible to have ideas creating discussions, begin? The seminar programme on methodology conducted between 1980-1982 in the Ankara University School of Medicine at the library of History of Medicine and Deontology Department, was the basis of this idea. The participants of this seminar were from different disciplines, either from mathematics, physics, or social science. In the seminar many fertile discussions took place, to find answers to the 'what', 'why' and 'how' questions associated with scientific knowledge. These methodology seminars ended after ten meetings in 1982. However on 18th March 1988 a dinner meeting took place in the Guest House of Ankara University,

with the participation of scientists from the different faculties of the University. During the dinner one of the main subjects discussed was 'methodology seminars' and it was then decided to establish a new society. This new association was named 'The Guest House Society' whose aim was to provide scientists with a debating platform to study influences and information in the fields of history of medical sciences, history of science, paleobiology, anthropology, and of social and political history... It was aimed especially at young academicians. The establishment of this society was due to Professor Fuat Aziz Goksel, of Ankara University School of Medicine and Chairperson of its Deontology Department, and Professor Ferruh Dincer, of Ankara University School of Veterinary Medicine, and Chairperson of the Veterinary History Department. Contributions were also made by Professor Eris Asil of Ankara University School of Pharmacy and Chairperson of the History of Pharmacy Department, Professor Esin Kahya, of Ankara University School of Letters, and Chairperson of History of Science Department, Professor Iter Uzel of the Gulhane Military School of Medicine and Chairperson of its History of Medicine Department and Professor Berna Arda of the Ankara University School of Medicine. These were scientists who wished to open a new and wider horizon to the world of science.

The subjects worked out in the Guest House Society were at first historical methodology, but from the beginning, it can be seen that there were no rigid limits. The seminars are not only dedicated to the history of medical sciences but also to prehistory, evolutionary development, paleobiology, paleoanthropology, paleopathology, all chosen by the Society. Many meetings covering a wide spectrum have been held on different subjects by the Guest House Society during the past 13 years. This spectrum contains 82 titles including: Methodology in the History of Medicine, Pergamon Asklepon, A General View of Paleopathology and Paleoanthropology, Methodology in Scientific History, The Problem of the Official History in Turkey, Psychohistoria, Medical Education during 19th Century, The Commercial Anatolia, Roads and Hospitals in the Seljuk Period, The Palaeolithic Age in the History of Humanity, Anatolia : Karain, Turkish and Medical Language.

What reflections of the seminars remained in participants' minds at the end of year of 2001 ? All the participants realised the importance and necessity of the interdisciplinary approach to the history of medical sciences. There were more than eighty seminars, producing memorable points for discussion. The

seminars provided an appropriate informal climate for young academics to learn some key words in making short presentations, or longer speeches, and for answering the subsequent questions, so aiding their future careers. During these seminars it has been especially important to use Turkish, the mother tongue, as a scientific language, and the importance of semantics is emphasised. The sessions were organised mostly in the Ankara University School of Medicine and sometimes in the Schools of Pharmacy and of Veterinary Medicine. As mentioned in the columns of the newspapers at the time, we welcomed our guests with smiling faces<sup>3</sup>. As a conclusion, the writer of this paper had the honour of making the very first presentation in March 1988 as well as having the responsibility for preparing the schedule of the seminars with the help of her colleagues, and she edited a selection on the 10th year of the Society. This selection was later published by the Bioethics Association of Turkey in honour of the 75th year of the Republic of Turkey.<sup>6</sup>

The Guest House Seminars	Number of the Seminars
<i>History of Medicine and Methodology</i>	29
<i>History of Science</i>	10
<i>Anthropology, Paleopathology-Biology</i>	10
<i>Social- Political History, Politic Psychology</i>	8
<i>History of Veterinary Medicine</i>	6
<i>History of Pharmacy</i>	6
<i>Observations, evaluations</i>	6
<i>Economy, Law</i>	3
<i>Astronomy</i>	3
<i>History of Dentistry</i>	1
<i>History of Nursing</i>	1
Total	82



Another part of this overall idea was the establishment of the Bioethics Association of Turkey (BAT) in Ankara in 1994. BAT was founded by Berna Arda, Ferruh Dincer, Funda Kadioglu, Yasemin Oguz, Yaman Ors, Gulbin Ozcelikay, Atilla Ozgur, Serap Sahinoglu Pelin, Sevgi Sar, and liter Uzel in Ankara on 28th September 1994. As a non-governmental organisation, the aim of BAT is to continue the progression and development of bioethics and its education and to develop its relations with health professions and other disciplines.

The association suggests the meeting of those who are interested in, and contributing to bioethics. Other aims are to provide an atmosphere for communication and discussion, and to provide international communication; to develop programmes for licence and postgraduate education; to organise conferences, symposiums, seminars, congresses; to provide publications; to encourage and support the activities regarding the subject; to introduce the subject to the public consistent with these aims. The association also aims to provide closer co-operation between members to warn the related departments when faced with unacceptable behaviour regarding ethics, and faults due to disrespectful attitudes, and to inform the public when it is necessary.

The range of subjects included :The Days of Bioethics (24- 25 May 1995), the Second Symposium of Medical Ethics (1995), Alternative' Medicine: Is it possible? (1996), Medical Ethics Course for Physicians (1996), the panel of scientific publishing ethics (1996), the Third Symposium of Medical Ethics (1997), the Fourth Symposium of Medical Ethics (1999), the Fifth Symposium of Medical Ethics (on physician's identity - 2000) are the main meetings which were organised by the Society. BAT has not yet a periodical but a book of the six proceedings of its meetings has been published.

In mid-1999 the Association was authorised to have 'Turkey' included in its title, and 'Turkiye Biyoetik Dernegi' could then be used officially. A Medical Ethics Congress was then organised in the Cappadocia Region on 18-20 October 2001 by the Association.

I believe it is meaningful for us, who have aimed for a scientific approach especially towards history, to finish this text with the words of Mustafa Kemal Ataturk who gave the direction below to the members of the Institution of Turkish History<sup>4</sup>.

*'First of all depend on the real documents that you have chosen with careful attention. Otherwise you would be manipulated by the street politicians and charlatans who pretend to be the historicists of the thousand nations. Take care for the new world horizons in the new sky of the history that you will open. Instead of creating an average product and being sorry afterwards the first thing is to explain the insufficiency of not being able to produce'.*

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**Administrative Council and General Assembly of ISHM  
(Istanbul - 1st and 5th September 2002)  
Conseil d'administration et Assemblée générale de la SIHM  
(Istanbul - 1er et 5 septembre 2002)**

**PRINCIPAL SUBJECTS ADDRESSED DURING  
THE ADMINISTRATIVE COUNCIL:**

1. The Executive Committee will meet each year in Paris during the month of June. The Administrative Council will meet alternatively in Paris in odd years (on the last Saturday of June) and in even years in the city of the Congress. Dr Philippe ALBOU, acting General Secretary, spoke with sympathy about Dr. Alain LELLOUCH, the former General Secretary. He thanked him for all work he had achieved and in particular for creating the website.
2. Report of the Treasurer :
  - At the end of 2001 the European Treasurer had on deposit 33,818.43 Euros in the account of the ISHM. The United States Treasurer had on deposit \$10,999.94 US.
  - The financial report (balance sheet) will henceforth be maintained for the calendar year (from 1 January to 31 December) rather than from June to June.
  - At the end of the year 2001 the ISHM had 41 I members at the time of their subscription.
  - For the year 2002 at this time ± 300 members (of a total of about 450) had paid their subscription.
3. The subscription is fixed at 50 Euros or \$50 US. A reduction in subscription to 25 Euros or \$25 US will be henceforth granted in the following circumstances:
  - For members under the age of 30.
  - For members who are 70 years of age or above.
  - In certain exceptional cases (individual members or members of certain countries that are experiencing economic difficulties) to be submitted with justifying reasons, confidentially to the president and the General Secretary.
4. Election of new members of the Administrative Council. The following were elected by majority vote (33 'yes,' one 'no'):
  - General Secretary: Philippe ALBOU, France (2008)
  - Associate General Secretary: Gary B. FERNGREN, USA (2008)
  - Treasurer: Alfredo MUSAJO-SOMMA, Italy (2008)
  - Associate Treasurer: Cynthia PITCOCK, USA (2008)
  - Vice President: Alain SEGAL, France (2004)
5. A new councillor was selected: Aldo CHIANCONE, Uruguay.
6. Upcoming international congresses of the ISHM:
  - 5-10 September, 2004: Bari.
  - 2006: The only candidate for the moment is Budapest. The final decision will be reached at the meeting of the Administrative Council in Paris in June, 2003. Other cities may still present their candidature.
7. Other congresses and symposia supported by the ISHM:
  - May, 2003: congress in Moscow.
  - September, 2003: symposium in Mexico City, Mexico (in planning).
  - June, 2005: symposium in Bourges, France, with a special commemoration of Jean-Charles Sournia, who was born in that city (in planning).
8. The Editors in Chief of Vesalius together with the Managing Editor will be succeeded commencing with the December 2002 issue, respectively by D. Wright, A. Segal, and J. Blair. President Jean-Pierre Tricot warmly congratulated, in the name of the Society, the former editors for their dedication and for the quality of the work accomplished since 1995.
9. A certain number of proposals that seek to modify the by-laws and the internal regulations are at present under consideration. A working document has been sent to the members of the Administrative Council. This consideration, which will take place during the coming year, will be co-ordinated by the vice presidents and the General Secretary.
10. It is necessary to rewrite the brochure that describes the Society, but which contains several items that are now erroneous.
11. A new 'Index Membrorum' (Membership List) will be published in a new format at the beginning of the following year.
12. A special effort will be undertaken to augment scientific interest in our Internet site, notably with an attempt to put in place a thematic index, with links to summaries in French, English, and, we hope, Spanish, of all the articles and papers published in Vesalius and in the Acts/Proceedings of the meetings or congresses of the ISHM (Tunis, Galveston, Lisbon, Istanbul, etc).

**PRINCIPAUX SUJETS ABORDES AU CONSEIL D'ADMINISTRATION:**

1. le Bureau se réunira chaque année à Paris au mois de juin Le Conseil d'Administration alternativement à Paris les années impaires (le dernier samedi de juin) et les années paires dans la ville du Congrès. Le Dr Philippe ALBOU, secrétaire général par intérim, parla avec sympathie du Dr Alain LELLOUCH, le secrétaire général sortant. Il remercia ce dernier pour tout le travail qu'il a accompli et en particulier pour avoir créé le site Web.
2. Rapport du trésorier :
  - A la fin de l'année 2001 le trésorier Européen disposait de 33 818,43 Euros sur le compte de la SIHM. Le trésorier Américain disposait de US\$ 10 999,94.
  - Le bilan financier sera désormais effectuée en année civile (du 1er janvier au 31 décembre) et non plus de juin à juin.
  - A la fin de 2001 la SIHM comprenait 411 membres à jour de leur cotisation.
  - Pour l'année 2002 à ce jour ± 300 membres (sur environ 450) ont payé leur cotisation.
3. La cotisation est maintenue à 50 Euros ou 50 US \$ Une cotisation réduite à 25 Euros ou 25 US \$ sera désormais accordée dans trois circonstances :
  - les membres âgés de moins de 30 ans
  - les membres âgés de 70 ans et plus
  - certains cas exceptionnels (concernant des membres individuel ou les membres de certains pays avec des difficultés économiques), à soumettre de manière motivée et confidentielle au Président et au Secrétaire général.
4. Election de nouveaux membres du bureau : ont été élus après un vote à la majorité absolue :
  - Secrétaire général : Philippe ALBOU, France (2008)
  - Secrétaire général adjoint. : Gary FERGREN, USA (2008)
  - Trésorier : Alfredo MUSAJO-SOMMA, Italie (2008)
  - Trésorier adjoint. : Cynthia PITCOCK, USA (2008)
  - un vice-président. : Alain SEGAL, France (2004)

Un nouveau conseiller a été admis : Aldo CHIANCONE, Uruguay
6. Les congrès internationaux de la SIHM :
  - 5-10 septembre 2004 : Bari (Italie)
  - 2006 : une seule candidature pour l'instant : Budapest (Hongrie). La décision finale sera prise au Conseil d'administration de juin 2003 à Paris. D'autres villes peuvent encore présenter leur candidature
7. Autres réunions soutenues par la SIHM :
  - mai 2003 : réunion à Moscou (Russie)
  - septembre 2003 : réunion à Mexico (Mexique)
  - juin 2005 : réunion à Bourges (France) avec notamment un hommage à Jean-Charles Sournia, qui est né dans cette ville
8. Les rédacteurs en chef de Vesalius ainsi que le « managing editor » seront remplacés à partir du numéro de décembre 2002 (respectivement par D. Wright, A. Ségal, J. Blair). Le Président Jean-Pierre Tricot a félicité chaleureusement, au nom de la Société, l'équipe précédente pour son dévouement et pour la qualité du travail accompli depuis 1995
9. Un certain nombre de propositions visant à modifier les statuts et le règlement intérieur sont actuellement à l'étude. Un document de travail sera remis aux membres du Conseil d'administration. Cette réflexion qui aura lieu durant l'année à venir sera coordonnée par les vice-présidents et le secrétariat général.
10. Il est nécessaire de refaire la brochure de présentation de la Société (dont un certain nombre d'informations sont désormais erronées).
11. Un nouvel « Index Membrorum » (liste des membres) paraîtra en format réduit au début de l'année prochaine
12. Un effort particulier va être entrepris, pour augmenter l'intérêt scientifique de notre Site Internet, notamment avec la tentative de mettre en place d'un index thématique, avec accès aux résumés en français, en anglais et, nous l'espérons en [espagnol.de](http://www.vesalius.org/espagnol.de) tous les articles et conférences publiées dans Vesalius et dans les Actes des réunions ou congrès de la SIHM (Tunis, Galveston, Lisbonne, Istanbul, etc.).

**PRINCIPAL SUBJECTS ADDRESSED DURING  
THE GENERAL ASSEMBLY:**

1. Address by the Président, Jean-Pierre TRICOT, to thank the organizers for the Istanbul Congress and the excellent quality of the réception and the course of the scientific sessions.
2. Address by Mrs. Nil SARI, Président of the Congress, who thanked all the congress participants for having contributed to the success of this 38e International Congress of History of Medicine
3. Report of the Secretary-general, Dr. Philippe ALBOU (in French), then of the associated Secretary-general, Dr. Gary FERNGREN (in English), about the principal resolutions of the Administrative Council. Then Report of the Treasurer (see above). No objections were raised by the members présent to these reports.
4. Other subjects that were addressed in the General Assembly in Istanbul :
  - Some members said that they had not received receipts for their subscription fees paid to the ISHM.
  - A member stressed that a high level of scientific quality should be maintained for papers published in Vesalius.
  - A member remarked that French-speakers constitute about one-third of the members of the ISHM. Consequently it is necessary on the one hand that French remains one of the two official languages of the Society and, on the other, that special attention is paid to ensuring that all the texts are well translated (for example, revised by a French speaker). This remark followed the reading of an official document which was discovered to have numerous mistakes.
  - A national delegate suggested that for the next congress in Bari we explore with an insurance company the possibility of obtaining cancellation insurance for emergencies.

**PRINCIPAUX SUJETS ABORDES AU COURS  
DE L'ASSEMBLEE GENERALE :**

1. Allocution du Président Jean-Pierre TRICOT pour remercier les organisateurs du Congrès d'Istanbul de l'excellente qualité de l'accueil et du déroulement des sessions scientifiques.
2. Allocution de Mme Nil SARI qui remercia l'ensemble des congressistes d'avoir contribué à la réussite de ce 38e Congrès International d'Histoire de la Médecine
3. Rapports du Secrétaire général, en français par le Dr Philippe ALBOU, puis en anglais par le Dr Gary FERNGREN, suivi par le rapport du trésorier (voir ci-dessus). Pas d'objection particulière des membres présents sur les différents rapports.
4. Autres sujets évoqués au cours de l'Assemblée générale :
  - certains membres se sont plaints de ne pas avoir eu de reçu pour leur cotisation à la SIHM.
  - un membre insiste pour que l'on puisse garder un niveau scientifique élevé pour la revue Vesalius
  - un membre remarque qu'il y a environ un tiers de francophones dans la SIHM, et qu'en conséquence, il est indispensable d'une part que le français reste une des deux langues officielles de la Société, et qu'en outre il y ait une attention particulière que les textes soient bien traduits (par exemple contrôlés par un francophone). Cette remarque fait suite à la lecture d'un document à caractère officiel où de nombreuses fautes sont constatées.
  - un délégué national demande que soit étudiées auprès d'une compagnie d'assurance, pour le prochain congrès à Bari, les possibilités éventuelles de contracter une « assurance annulation pour raison de force majeure ».

Philippe ALBOU  
Secrétaire général de la SIHM  
General Secretary of ISHM

Gary FERNGREN  
Associate General Secretary of ISHM  
Secrétaire général adjoint de la SIHM

## **Book Review**

### ***I Acted From Principle***

***The Civil War Diary of Dr William M McPheeters,  
Confederate Surgeon in the Trans-Mississippi***

*Edited by Cynthia DeHaven Pitcock and Bill J Gurley  
The University of Arkansas Press, Fayetteville, 2002  
xvi + 423 pp*

This is a book from a series entitled *The Civil War in the West*, which explores lesser-known aspects of the American Civil War in the Trans-Mississippi area. Dr William McPheeters was born in 1815 in North Carolina, but was practising medicine in St Louis when the War started. His Southern upbringing and allegiance led to persecution and he left St Louis and joined the Confederate Army. Between 1862 and 1865 he kept a diary recording events and his thoughts as he served as a medical officer in the bitter war being fought.

The entries from the diary are in original form, arranged in chapters with introductions to explain the context. There are maps to illustrate the journeys that Dr McPheeters made and show various army movements. The diary was never intended for publication but research by the editors has provided background knowledge to give more information about people and places where necessary. To this detailed annotation is added an epilogue, which traces Dr McPheeters' career after the War. He died in 1905, towards the end of his long life being able to make use of both the telephone and the X-Ray machine.

The book provides an opportunity to read a first hand account of a tragic time in the history of America as seen by a medical man. The scholarly setting in which the diary is presented adds to its value. What remains in the mind of the reader is the horror and brutality of war as recorded by someone who acted throughout his own life as a man of principle.

David Wright

## **BIOGRAPHISCHES LEXICON**

*HERRVORRAGENDER ARZTE  
1880-1930*

*3rd Volume.*

This Biographical Encyclopedia (Lexicon) is of outstanding doctors between 1880 and 1930. It is the third and fourth volume of a series compiled by Dr Isidor Fischer, the previous being published in 1932 and 1933. This volume by Peter Voswinkel, is dedicated to Dr Fischer (1868-1943) and Esther Simpson (1903-1996). and consists of additions, alterations, and supplements to the earlier volumes. The foreword draws special attention to the enormous displacement of Jewish and quasi-Jewish doctors. As such it is a very valuable account of what happened to the 1 in 5 women doctors and 1 in 6 men who were Jewish following the Nuremberg Law discriminating against them. It catalogues also doctors who espoused the Nazi cause, noting that many were allowed to remain in academic posts after 1945 in the Zones of Germany except the French Zone, where all such were removed. These latest descriptions of doctors were published at the final opening of the Iron Curtain.

Isidor Fischer was a gynaecologist and medical historian from Vienna and was medical librarian there from 1921-1930. He was an honorary member of national history associations in Italy, Rumania, and Greece as well as being an honorary Fellow of the Royal Society of Medicine. He was denied professional promotion as he was a liberal Jew and was forbidden to put his name to his papers. He went to London in 1938 with his family and continued his work in the British Museum. He published a book 'Jews in Medicine' and others. He died in Bristol in 1943.

## ***Médical History Conférences and Meetings 2003-2004***

<i>Conférence</i>	<i>Date</i>	<i>Contact/web site</i>
USA-Washington Anatomy and Art	until 31st July, 2003	<a href="http://www.nlm.nih.gov">www.nlm.nih.gov</a> / dream.anatomy educator @ <a href="mailto:nlm.nih.gov">nlm.nih.gov</a>
Canada - Montréal 3rd International Network for the History of Hospitals Conférence	17-19th June, 2003.	<a href="mailto:Annmarie.adams@mcgill.ca">Annmarie.adams@mcgill.ca</a>
Turkey - Bursa. 3rd International Congress of Medical Ethics, Mudayana-Montania Hôtel.	25-28th June, 2003.	Congress président Aysegül Erdemir. <a href="mailto:Kongre@burkon.com">Kongre@burkon.com</a> <a href="http://www.burkon.com.biyotetik">www.burkon.com.biyotetik</a>
United Kingdom -York. British Society for History of Science — Annual Conférence.	17-19th July, 2003.	<a href="mailto:Gbunn@onetel.net.uk">Gbunn@onetel.net.uk</a> <a href="http://www.bhs.org.uk/york2003">www.bhs.org.uk/york2003</a>
United Kingdom - Reading 20th BSHM Congress	4-7th September, 2003.	Organiser: Mr Dermot O'Rourke, 38 Stanhope Road, Reading <a href="mailto:dermot@ouvip.com">dermot@ouvip.com</a>
United Kingdom — Médical Sciences Historical Society. Seventh Baron von Liebig Memorial Lecture, Royal Society of Medicine, London	12 September, 2003.	John R. Foster, Secretary <a href="mailto:johnnus@blueyonder.co.uk">johnnus@blueyonder.co.uk</a>
Mexico City - I lth Réunion Internacional de Historia de l Medicina	17-20 September, 2003.	Carlos Viesca T., Présidente <a href="mailto:ventas@frontstage.org">ventas@frontstage.org</a> fax 01 (55) 5515 9269
United Kingdom - British Society for the History of Paediatrics and Child Health - 2nd Annual Conférence Robinson Collège Cambridge	26-27 September, 2003.	Dr Jo Barnes West House, Wandlebury Ring Barbraham, Cambridge CB2 4AE Tel: 01223 248316 <a href="mailto:nickdelano@aol.com">nickdelano@aol.com</a>
Italy - Bari. 39th ISHM Congress	5-10th September, 2004.	Professor Alfredo Musajo-Somma <a href="http://www.39ishmcongress2004.it">www.39ishmcongress2004.it</a>
Greece — Delphi Symposium on the History of Diabètes	7-9 September, 2005.	<a href="mailto:Congress@cne.gr">Congress@cne.gr</a> <a href="mailto:cbartsok@cc.uoa.gr">cbartsok@cc.uoa.gr</a>

**BRITISH SOCIETY FOR THE HISTORY OF  
PAEDIATRICS AND CHILD HEALTH**

**SECOND ANNUAL CONFERENCE  
ROBINSON COLLEGE  
UNIVERSITY OF CAMBRIDGE**

(6 CPD Points)

**FRIDAY 26th & SATURDAY 27th SEPTEMBER 2003**

**Hosts: Drs. Nick and Jo Barnes**

Commencing with buffet lunch at 1 300 hrs on Friday  
and ending after lunch on Saturday,  
followed by visit to Rupert Brooke Museum & tea at The Orchard, Granchester  
A combination of free communications and invited lectures, including Sir David Hul  
Residential en-suite accommodation at Robinson College.  
Social programme including dinner on Friday evening.

All are welcome : Enquiries to Dr Jo Barnes, West House,  
Wandlebury Ring, Barbraham, Cambridge CB2 4AE  
Tel: 01223-2483 16, Fax: 01223-212772  
Email: [nickdelano@aol.com](mailto:nickdelano@aol.com)

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*Year 2004 LAUREATE OF THE HISTORY OF MEDICINE*

***Nicholas Greene, Honorary Chairman  
Doris Cope, Chairman WLM Laureate Committee***

Nominations are invited for the person to be named the third Wood Library-Museum  
Laureate of the History of Anesthesia in the year 2004.

The previous Laureates have been Dr Gwenifer Wilson of Australia in 1996 and, as  
Co-Laureates in 2000, Dr Norman A Bergman and Dr Thomas B Boulton.

The Laureate program is international, with the Laureate Committee actively seeking and welcoming any  
and all nominations. Nominations for the 2004 Laureate must be received on/before July 1 2003 and the  
name of the 2004 Laureate will be announced in October 2003. Though the post of Laureate is not  
associated with prescribed duties, it carries with it the WLM Trustees' expectation that the Laureate will  
remain active in publication of historical materials and will continue to contribute to the education of  
anesthesiologists and others through lectures and participation in appropriate panels and seminars.

Additional information regarding the Laureate Program and how to go about nominating individuals may be  
obtained by contacting, by mail only, the WLM Laureate Committee at the Wood Library-Museum, 520 N  
Northwest Highway, Park Ridge, Illinois 60068-2573. Faxes will not be accepted.

# ***International Society for the History of Medicine***

## **APPLICATION FOR MEMBERSHIP**

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Forenames :

Date of birth :

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Fax :

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Languages spoken fluently :

Languages read :

### **Your experience in the History of Medicine**

Historical Field of Interest :

Periods studied :

Current research :

Published works :

Do you teach the history of medicine ?

No

Yes:

Are you affiliated with another institution associated with the history of medicine (e.g. museum, library) ?

If so, which one?

Would you be available for translations for Vesalius or for the Internet site ?

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Date:

Signature :

This application form should be sent to the General Secretary :  
Dr *Philippe ALBOU*, 13 Cours Fleurus, 18200 SAINT-AMAND (FRANCE)  
E-mail: [philippe.albou\(a\)wanadoo.fr](mailto:philippe.albou(a)wanadoo.fr) Fax : 00 33 2 48 96 27 98



## **Société Internationale D'Histoire de la Médecine**

### **FORMULAIRE D'ADHESION**

Titres : M. Mme. Dr Pr

Nom :

Prénoms :

Date de naissance :

Adresse :

Téléphone :

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Langue (s) parlée (s) couramment :.....

Langue (s) comprise (s) en lecture :.....

#### **Votre expérience en Histoire de la Médecine**

Points d'intérêt historiques :

Epoques étudiées :

Recherche actuelle :

Travaux publiés :

Fonctions d'enseignement en histoire de la médecine :

Non

Oui : .....

Autres fonctions en rapport avec l'histoire de la médecine  
(musée, bibliothèque, etc.) :

Seriez-vous disponible pour des traductions (pour Vesalius ou pour le site Internet) ?

Si oui : de quelle langue en quelle langue :

Date :

Signature :

Ce formulaire doit être adressé au Secrétaire Général :  
Dr *Philippe ALBOU*, 13 Cours Fleurus, 18200 SAINT-AMAND (FFtANCE)  
E-mail : [phUippe.alboudpwanadoo.fr](mailto:phUippe.alboudpwanadoo.fr) Fax : 00 33 2 48 96 27 98

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