

Although Puff deals with a later period, the time of the Reformation in southern Germany and Switzerland, and a different topic, the material culture of illicit sexual practices, some of the ideas in his rich essay are complementary to Park's argument. Like relics in the Middle Ages, clothes in the early modern period, Puff argues, occupied an in-between position. They belonged as much to the self of a person as to the outer world. Where today we tend to regard clothing as an exchangeable and merely external statement, our ancestors ascribed a more static character to the textile skin. This becomes evident in many early modern German sayings, such as "Clothes make the man" ("*Kleider machen Leute*"), as well as in "wanted" circulars or passports, which often specify clothing rather than corporal features as markers of identity. Puff follows Michel Foucault, and more recently Stephen Greenblatt, in claiming that before the seventeenth century allegorical techniques created connections between the world of matter and the world of ideas. Puff shows in his investigations of sodomites' clothes, in particular, that sexual acts could be easily attached to material goods; such as, for example, in the exchange of trousers between two men.

This collection of essays is helpful to those who would appreciate an overview on how different academic fields investigate the "material culture" of sex, marriage and procreation. The necessity of such a project for further historical studies cannot be emphasized enough. However, for those hoping for guidance through the methodological jungle that has been growing over the last few years around the topic of "material culture" disappointment awaits. Original ideas on how to combine written sources and objects, or suggestions on how to reconcile things and language are not apparent. But, other than the essays by Park and Puff, the contributors stay very much within their disciplinary boundaries. Material objects, it seems, travel rather better across time than between contemporary disciplinary divisions.

Claudia Stein,
Warwick University

Julius Rocca, *Galen on the brain: anatomical knowledge and physiological speculation in the second century AD*, Studies in Ancient Medicine, vol. 26, Leiden and Boston, Brill, 2003, pp. xxiii, 313, illus., €85.00, US\$99.00 (hardback 90-04-12512-4).

Galen's anatomical investigations have never entirely recovered from the assault made on them by Andreas Vesalius in 1543, who argued that Galen's human anatomy was based on false inferences from animals. Vesalius may have been largely right in this conclusion, but he also carefully played down the range and quality of Galen's dissections (and occasionally vivisections) of animals. Not even the rediscovery in 1906 of the Arabic version of the (lost) second half of his manual of dissection, *Anatomical procedures*, altered general perceptions of Galen's folly and incompetence. Julius Rocca's arguments, in line also with the recent work of the Italian neurologist, Tullio Manzoni, should put an end to that old canard. Galen, it is now clear, was a diligent, skilful, and exceptionally sophisticated anatomist, whose understanding of the brain was based on a remarkably detailed acquaintance with the facts revealed by dissection.

The foundations of Rocca's confidence in Galen rest on a long familiarity with his anatomical writings and, most important of all, on his own experience as a professional anatomist. Thanks to colleagues in Cambridge and Sweden, he has been able to repeat Galen's dissections under conditions similar to those of Antiquity. Although Galen often used monkeys, sheep, pigs and goats in his dissections, in his investigations of the brain he worked largely on ox brains, which provided him with the best evidence visible to the naked eye. Rocca has been able to follow in detail all the steps described by Galen in *Anatomical procedures*, and to confirm the accuracy of many of Galen's observations, warnings, and caveats. He shows in an appendix how Galen came to posit a *rete mirabile* in humans from a combination of bovine anatomy and a belief in Plato's tripartition of the body, in which blood required to be created (or transformed) in a particular organ

before it could become a fluid appropriate for each of the three systems, venous, arterial and nervous.

Rocca's findings reveal Galen's sophistication as an experimental dissector, aware of the advantages and disadvantages of a wide range of different procedures and techniques. What was suitable when investigating the heart, for instance, was not necessarily so for the brain. As some very recent discoveries in Arabic have shown, this appreciation of the value of dissection was not entirely Galen's own achievement, but one that he may well have derived from his teachers or, indeed, his opponents. His *bête noire*, Lycus of Macedon, only a few years before Galen arrived in Rome in AD 162, had published a substantial manual of dissection that included sections on vivisection as well as on dissection. Whether Galen was right to trace this revival of anatomy back to Marinus in Alexandria around AD 100, cannot be confirmed in the present state of our evidence, but it seems at least plausible.

It would be easy to be carried away by the evidence Rocca has assembled and view Galen as a very modern anatomist and experimenter. But Rocca has also seized on one crucial point of difference. Galen was less interested in anatomy for its own sake than for what it could reveal about the soul and about where this controlling power was located in the body. It was a debate that went back to Aristotle, if not to Plato before him, and helps to explain some of the peculiarities of ancient anatomical discourse. Whatever philosophical view of the soul one took led to a particular interpretation of its seat and role in the body. The search for the origin of the nerves was a philosophical, some might even say theological, enquiry as much as an anatomical one, and accounts for Galen's triumphant hymn to the Creator in the last book of *On the usefulness of parts*.

When there is so much here that is new and that successfully bridges the gap between Galen's anatomy and his philosophy, it would be unkind to ask for more. But two areas are worth further investigation. The newly "rediscovered" treatise by Galen, *Movements hard to explain*,

shows a different side to him as an anatomist, one who wishes to examine further the points at which theory seems to collide with the facts revealed by dissection. His comments in this short treatise on the role of nerves could profitably be developed along the lines Rocca has laid down. Secondly, there is still much to learn about the ways in which Galen's anatomy was used in Late Antiquity or the Latin Middle Ages. For example, Bishop Nemesius of Emesa's passing comments on the location of brain function could well go back to a lost treatise by Galen, who was the source for some of that cleric's most interesting speculations. Similarly, a new look at the pseudo-Galenic treatise *On the voice*, edited in 1962 by Hans Baumgarten, might reveal further information about Galen's methods and results.

But that is for the future. Rocca in this book has re-established Galen's credentials as an outstanding anatomist, and it is not only Galenists who will derive pleasure from this combination of learning and practical skill.

Vivian Nutton,

The Wellcome Trust Centre for the
History of Medicine at UCL

Galen, *On the properties of foodstuffs* (*De alimentorum facultatibus*), introduction, translation and commentary by Owen Powell, foreword by John Wilkins, Cambridge University Press, 2003, pp. xxvi, 206, £40.00, US\$55.00 (hardback 0-521-81242-9).

This is an elegantly produced book. John Wilkins introduces its subject by explaining how Galen arranged his work. By and large, the foods discussed are placed in discrete categories, that is cereals, meat, fish, pulses or the like. However, Wilkins suggests that some items do not fit neatly into these divisions, for example the snail. Yet the way in which Galen introduces this creature sounds humorous rather than perplexed. Aristotle (*HA* 523b11) had bracketed snails among those animals with a fleshy interior and an exterior shell. That Galen