BOOKS ET AL

EXHIBITIONS: ART

Cultural Traces of a Vital Fluid

Kerstin Schmidt

hrough its roles as symbol, metaphor, substance, and scientific object, blood has long had a substantial impact on human culture. *Blood: Perspectives on Art, Power, Politics and Pathology*, a multidisciplinary exposition split between two museums in Frankfurt am Main, presents works from the last two millennia to explore how

the visual arts have reflected the changing notions of what blood is and what it does. The exhibition is divided into four thematic chapters, separated by "bridges" that consider the cultural and scientific contexts in which the images were developed.

When one enters the exhibition at mak.frankfurt (the Museum für Angewandte Kunst), dimly lit violet walls and the rhythmic sound of drums create a threatening aura for the first chapter's theme, "Sacrificial Blood." Selected objects from the Maya civilization introduce a perspective on blood from a non-European culture. Maya society was fundamentally shaped by its belief that human sacrifice is the most valuable good

that can be given to divine power to maintain the eternal equilibrium among cosmos, human world, and underworld. Embossed discs and clay figurines depict captives and the sacrificial scenes, but the most impressive relict of the ritual is a sharp obsidian knife. This was manufactured from volcanic glass for the sole purpose of excising the sacrificed human's still-beating heart to emphasize a ruler's power.

A slide projection of Maya temple paintings that depict the bloodletting and sacrificial rituals intermittently brightens the room. In addition, various texts providing background information cover the large walls outside the "temple" in which the objects are displayed. But the use of silver lettering on the poorly illuminated violet, red, or pastel green walls makes the texts difficult to follow.

Rejecting pagan views on the need for repeated blood sacrifices, Christians perceived themselves as being saved by the self-sacrifice of Jesus. The exhibition's second chapter focuses on the redeeming aspect of blood in Christian culture as illustrated by paintings and iconography concerned with Christ's sacrifice. For example, an allegorical work by the late 17th-century Mexican painter Juan Correa shows a vine of grapes growing out of Jesus' chest and Christ him-

Blood Perspectives on Art, Power, Politics and Pathology mak.frankfurt and Schirn Kunsthalle, Frankfurt

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Blood Art, Power, Politics and Pathology James M. Bradburne, Ed. Prestel, Munich, 2001. 272 pp. Paper, \$65. ISBN 3-7913-2600-7. self wringing the bloody juice onto a pope's platter. The scene colorfully demonstrated to its viewers, who were often illiterate, how blood is transformed into wine in the Eucharist.

I found the third chapter, "Dynastic Blood," to be the best elaborated. It begins in mak.frankfurt, where viewers are confronted with portraits of the Habsburg family. The Habsburgs claimed descent from the Roman emperors and tried to maintain their dynastic power (which they saw as originating in their pure blood) by "marrying-in." The sequence of illfaced emperors put in this context credibly illustrates how a series of marriages among closer and closer relatives ironically

produced heirs who were unable to reign because of severely debilitating inherited diseases. The only cure was fresh "dirty" blood from outside the family.

This chapter continues in the Schirn Kunsthalle, where the tragic fate of another dynasty, the Russian Tsars, is depicted. To save their dynastic power, the Romanovs also preferred marrying partners of "noble blood," which subjected them to the heritable disease of hemophilia. A photograph of the hemophilic adolescent Tsarevich Alexis on a tricycle instead of a bicycle (for safety reasons) emphasizes the fatal danger that loomed over the Romanov line. Other drawings in this section show that the Romanovs, attempting to maintain their power, were not only afflicted with the life-threatening disease but also faced the bloody terror of the ultimately successful revolutionaries.

"Pathological Blood," also at the Schirn, contains the exhibition's most dramatic and most controversial works, from contemporary action painters and performance artists. Filmed excerpts from plays of the "Orgies Mysteries Theater" by the Viennese actionist Hermann Nitsch replay sacrificial myths using animal cadavers and blood



Juan Carreno de Miranda's portrait *King Charles II of Spain.* Described as a "dreadful cretin," Charles II was the offspring of Philip IV and the Archduchess Maria Anna (who was her husband's niece from her mother's side and his cousin through her father).

poured over naked humans. The degree of self-destruction and masochism (including cuts with razor blades or broken glass) portrayed in performance pieces such as Günter Brus's *Endurance Test* and Marina Abramovic's *The Lips of Thomas* leaves one brooding over the artists' intentions to expand the borders of art and could only be surpassed by self-sacrifice on stage.

The organizers have tried to present the artwork, historical documents, and artifacts in a way that the exhibitions in the two museums could be viewed independently. However, some topics suffer from being distributed within and across the museums. For example, following the historical flow, the fatal medieval attempts of blood transfusion (which culminated in its prohibition) are covered in the "Redemption" chapter. The first successful transfusions (in the 19th century) and the later improvements to yield a significant life-saving step (during the First and Second World Wars) are mentioned amidst discussions of discrimination by blood and race and "bloody" female intrigues such as Salomé's. Lastly, the German Red Cross presents transfusion technology in the context of an "interactive lab." In addition, topics such as the history of medicine surrounding blood, purgatory blood-letting, and blood-transmitted diseases would have benefited from more comprehensive illustration.

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Weaving the various aspects of blood as it is recognized in contemporary and historical art, politics, and science into a coherent whole presents a major challenge. The curators' efforts seem only partially successful because the thread is sometimes lost. Visitors to the exhibition will probably find the guided tours and lectures helpful. They, and anyone interested in the topic, will also enjoy the more comprehensive overview provided by the excellent and convincing essays in the exhibition's catalog.

BOOKS: EVOLUTION

A Grand Old Synthesizer's Overview

Menno Schilthuizen

he research institute where I work is located in an area of high tropical biodiversity: Borneo. Twice a year, it organizes a large expedition to mountainous and forested areas in the interior. We travel in air-conditioned off-road vehicles and motorized river boats. Navigation is by Global Positioning System, communication by satellite phone, and in case of an emergency, help can arrive by

What Evolution Is by Ernst Mayr

Basic Books, New York, 2001. 336 pp. \$26, C\$39.50. ISBN 0-465-04425-5. helicopter. Threequarters of a century ago—long before the word biodiversity was even invented the young German ornithologist Ernst Mayr did not have

any of these modern conveniences during the four continuous years he spent on expeditions in and around New Guinea, another island with a remarkably diverse biota. As Jared Diamond notes in his foreword to *What Evolution Is*, Mayr was officially reported killed by local tribes; survived malaria, dengue fever, and dysentery; nearly drowned in an overturned canoe; and endured a forced descent of a waterfall. Despite such travails, Mayr returned safely with thousands of bird specimens, which laid the basis for one of the most influential careers in evolutionary biology.

Mayr played a major role in the forging of the "modern synthesis": an amalgamation of genetics, systematics, paleontology, and ecology that united Darwin's theory of natural selection with the developing understanding of the mechanisms of heredity. His

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main contribution to the synthesis, Systematics and the Origin of Species (Columbia Univ. Press, New York, 1942), was followed by another classic, Animal Species and Evolution (Harvard Univ. Press, Cambridge, MA, 1963). Other milestones in his career include a dozen or so books on ornithology, systematics, and the history and philosophy of biology. He has witnessed, usually up close, all the major developments in evolutionary biology over most of the 20th century (population genetic theory, cladistics, molecular phylogenetics, and evo-devo, to name but a few). At age 97, he still keeps an office at Harvard, and he continues to write. What Evolution Is, his latest book, aims to be "a primer on evolution for the general reader." Given Mayr's status as the grand old man in the field, such a goal raises high expectations.

In some respects, the book lives up to these expectations; in others, it disappoints.

To offer an overview of such a large and diverse subject within the space of less than 300 pages of text, Mayr draws mainly on his earlier writings. These are condensed; stripped of most references, examples, and illustrations; and usually updated with modern insights. Unfortunately, the result often makes for rather boring reading. Fascinating subjects such as isolating mechanisms (the structures and behaviors that prevent different species from hybridizing), which were so brilliantly treated

in *Animal Species and Evolution*, are here dealt with in abstract terms in a page or less. Although Mayr succeeds at being complete but succinct, his approach leaves little space for illustrative examples. For the general reader, Mayr's account may have leapt to life more frequently if he had sacrificed completeness for attractiveness.

Another element that may pose an obstacle to the intended audience is the occasionally polemic style. Evolutionary biology is a discipline rife with controversy, and over his many years of writing, Mayr has adopted the habit of weaving into his accounts defenses (and sometimes offenses) aimed at his critics. In academic literature, this style is often an effective means of proving a point. However, for the naïve layperson, unfamiliar with the various evolutionary "camps," the small kicks and punches (aimed at, for example, Paterson's recognition species concept and Kimura's view of neutral evolution) that dot the text may be only puzzling.

To his credit, Mayr has attempted to bring most of the sections in the book up to date with new data. For example, the recently amassed paleontological data on the evolution of whales and their relatives are brought in to illustrate the fossil evidence for evolution. He even generously acknowledges the existence of sympatric speciation (the splitting of species without prior geographical isolation), a concept he once vehemently opposed. In discussing this process, he cites celebrated examples from the cichlid fish of crater lakes in Cameroon and host-specific herbivorous insects, studies that gained prominence in the 1990s.

Still, such modernizations are only implemented where they fit within one of Mayr's familiar themes. Disciplines that emerged after the 1970s are largely ignored. About transposons and other selfish genetic elements—the study of which is now a burgeoning field full of implications for speciation, sexual selection, and phylogenetics— Mayr says it is "not clear whether the phenomenon is widespread." Sexual selection by female choice, another relatively recent field,



Ernst Mayr.

which has enjoyed substantial empirical and theoretical advances, gets only six lines.

Among the more interesting parts of the book are the two appendices. Mayr offers these, in part, to lend a helping hand to evolutionists who find themselves facing creationism or just plain ignorance as well as to creationists who may "simply want to know more about the current paradigm of evolutionary science if for no other reason than to be better able to argue against it." Here, Mayr gives answers that will be as infuriating to creationists as the questions—"Is evolution a fact?" "How can we prove evolution if we cannot do experiments?"—themselves are to evolutionists.

In summary, *What Evolution Is* is an interesting and important book because Ernst Mayr is an interesting and important scientist. The work also offers historians of biology a view of how Mayr, who shaped evolutionary biology during the 20th century, views the state of the field at the start of the 21st. However, the book's cursory style and neglect of major new developments make me doubt that it will be, as the author intended, the evolution text for the educated public.

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