

ZOO VIEW

Herpetological Review, 2018, 49(4), 774–778.
© 2018 by Society for the Study of Amphibians and Reptiles

A Bale of Bejeweled Turtles

BEAUTY IS IN THE EYE OF THE BEHOLDER.

—MARGARET WOLFE HUNGERFORD (NÉE HAMILTON) IN *MOLLY BAWN*, 1878

PITTABLE SEEMS THE CONDITION OF THIS POOR EMBARRASSED REPTILE: TO BE CASED IN A SUIT OF PONDEROUS ARMOUR, WHICH HE CANNOT LAY ASIDE; TO BE IMPRISONED, AS IT WERE, WITHIN HIS OWN SHELL, MUST PRECLUDE, WE SHOULD SUPPOSE, ALL ACTIVITY AND DISPOSITION FOR ENTERPRIZE. YET THERE IS A SEASON OF THE YEAR (USUALLY THE BEGINNING OF JUNE) WHEN HIS EXERTIONS ARE REMARKABLE. HE THEN WALKS ON TIPTOE, AND IS STIRRING BY FIVE IN THE MORNING; AND, TRAVERSING THE GARDEN, EXAMINES EVERY WICKET AND INTERSTICE IN THE FENCES, THROUGH WHICH HE WILL ESCAPE IF POSSIBLE; AND OFTEN HAS ELUDED THE CARE OF THE GARDENER, AND WANDERED TO SOME DISTANT FIELD. THE MOTIVES THAT IMPEL HIM TO UNDERTAKE THESE RAMBLES SEEM TO BE OF THE AMOROUS KIND: HIS FANCY THEN BECOMES INTENT ON SEXUAL ATTACHMENTS, WHICH TRANSPORT HIM BEYOND HIS USUAL GRAVITY, AND INDUCE HIM TO FORGET FOR A TIME HIS ORDINARY SOLEMN DEPARTMENT.

—GILBERT WHITE DISCUSSING HIS PET GREEK TORTOISE TIMOTHY IN HIS BOOK *THE NATURAL HISTORY OF SELBORNE* IN 1780

Clearly, most visitors to zoos, aquariums, and museums are more comfortable seeing chelonians rather than other reptiles—especially unblinking snakes (see Burghardt et al. 2009)—perhaps due in part to them having eyelids and limbs. Many herpetologists began their careers by catching and keeping turtles and tortoises (Fig. 1). During my career in zoos, I only saw a single instance where a mother gathered her children and dashed out of the reptile building, screaming all the while that turtles are fierce, dangerous, and ugly. Indeed, there was a healthy interest in keeping turtles and tortoises throughout the Victorian era: “Strolling on the promenade in 19th Century Paris with a live turtle was all the rage, as described by Walter Benjamin...: ‘Around 1840, it was briefly fashionable to take turtles for a walk in the arcades. The *flâneurs* [idlers] like to have the turtles set the pace for them. If they had had their way, progress would have been obliged to accommodate itself to this pace . . . this attitude did not prevail’ ” (Murphy 2016a). Even today, pet shops sell walking harnesses for chelonians. Some are constructed with two straps crisscrossed (in the figure X) on the carapace and a 10-foot leash attached at the center. Perhaps using an iPodnano[®] would work for increased enrichment. Tiny headphones could be attached to tympanic membranes, playing male breeding tortoises vocalizing in the background.

When I first encountered an image of a two-headed turtle sculpture by Joslin a short time ago as I searched the internet for another artist, I was mesmerized. Artists and craftspeople

JAMES B. MURPHY

Division Amphibians & Reptiles, National Museum of Natural History,
10th and Constitution Ave NW, Washington, DC 20013-7012, USA
e-mail: murphyjb@si.edu

are inspired by a wide range of forms, perhaps especially by the curiosity that is a turtle. Obst (1986) showed some spectacular examples of *objets d’art*, mostly from countries in eastern Asia—“Innumerable small statues with turtle motifs can be found... Among the small bronzes, those showing a turtle with a white crane are particularly striking. This popular motif illustrates the Buddhist legend of the turtle carrying the crane across a raging torrent... Another turtle sculpture that is frequently found in Japan shows two turtles, one mounted on the other. It represents the turtle’s great diligence in mating and its gregarious nature.” I am reminded of the Turtle Poem by Ogden Nash—“*The turtle lives ‘twixt plated decks. Which practically conceal its sex. I think it clever of the turtle. In such a fix to be so fertile.*” To get a sense of the elaborate courtship and copulatory behaviors in many species, see Murphy (2016a,b) and (Murphy and Lamoreaux (1978) (Fig. 2).

Inspired by the beauty of skeletal architecture, and a passion for assemblage sculpture, Jessica Joslin began building her bestiary of mechanical animals in 1992. Her creations of turtle pieces use various jewels. Her collection of creatures includes a myriad of different species and hybrids, and numbers over 200 sculptures in total. Joslin honed her fabrication skills building toy prototypes, architectural models, trade show displays, photo props, and film sets. Her monograph, *Strange Nature*, was published in 2008 and her work has been featured in numerous books, magazines, and exhibitions worldwide. Her educational background includes School of the Art Institute of Chicago,



FIG. 1. “Finding a Tortoise” by prolific artist William Holbrook Beard (1825–1900). Beard was an American born in Ohio, well-known for his satirical paintings of animals, especially dancing bears participating in human activities. He opened his own studio on Tenth Street in New York City. His amusing paintings stressed bears, cats, dogs, horses, squirrels, and monkeys, often with some human expression and occupation; these illustrations were highly popular. One strange one is of a squirrel and turtle almost touching noses.

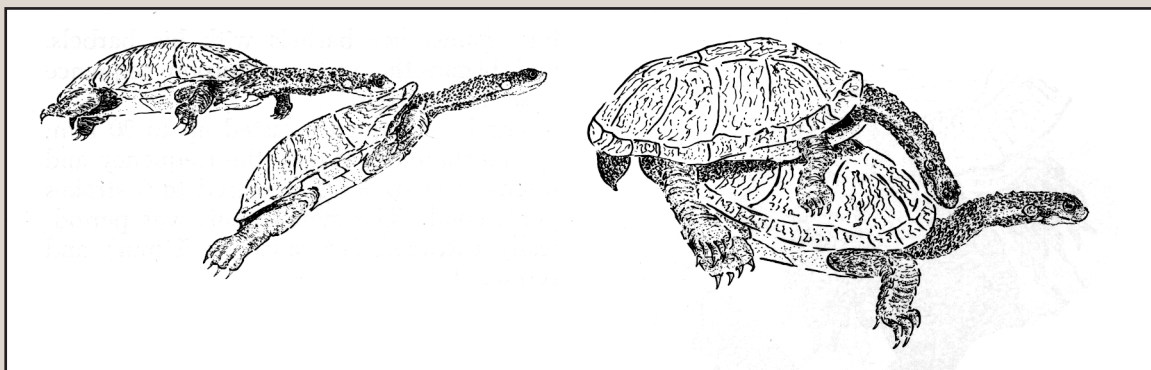
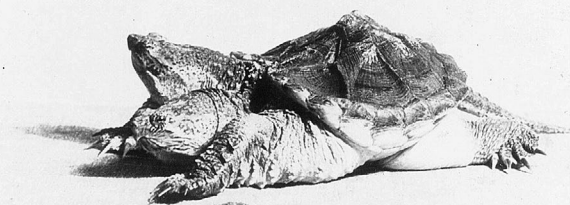


FIG. 2. Alignment posture (left) and arched-neck mounting posture in aquatic Australian Snake-necked Turtle (*Chelodina longicollis*). The male attains initial position by placing chin in the vertebral groove of female in region of her postvertebral marginal scutes, then swimming rapidly forward until the female nuchal scale is reached. The mounting posture during the sequence shows the male holding female between the lower surface of the marginal scutes and femoral portion of her hindlimbs. For additional information, see Murphy and Lamoreaux (1978).

NIP AND TUCK
SIAMESE TWINS
MINNESOTA SNAPPING TURTLE



WEIGHT 7½ LBS. AGE 5½ YRS.
GRACE WILEY ©

FIG. 3. Two-headed Snapping Turtle used by Grace Olive Wiley in her public lectures. Note kyphotic shell.

Illinois, Studio Art Centers International, Oxford Polytechnic, Oxford, England and Florence, Italy, and Parsons School of Design, New York.

Herpetologists will recognize that Joslin's two-headed turtle is not fantasy. There are a number of reports of two-headed turtles, often with colorful nicknames. A two-headed turtle affectionately known as "Thelma and Louise" lived at the San Antonio Zoo, the name based on the movie title. Grace Olive Wiley used a two-headed snapping turtle named "Nip & Tuck" in her public lectures (Murphy and Jacques 2006, Figs. 3, 4). Samuel Hildebrand (1938) described various "monsters"—1) Two-headed Yellow-bellied Terrapin (*Chrysemys scaber*, now *Trachemys scripta scripta*). This type of partial twinning is the most commonly encountered. In this case only the head was double, with the spinal column branched anterior to the shoulder girdle. 2) Diamond-back Terrapin (*Malaclemmys centrata*), in which duplexity has extended quite uniformly "fore and aft." The animal had two tails of normal size as well as two heads, and a rudimentary "fifth leg" was situated between the heads. 3) A Florida terrapin (*Pseudemys floridana*), the first and only Siamese turtle twins known at that time that were attached plastron to plastron, so that the two components faced each other. This turtle evidently could not get its feet on the ground to walk, and it survived only

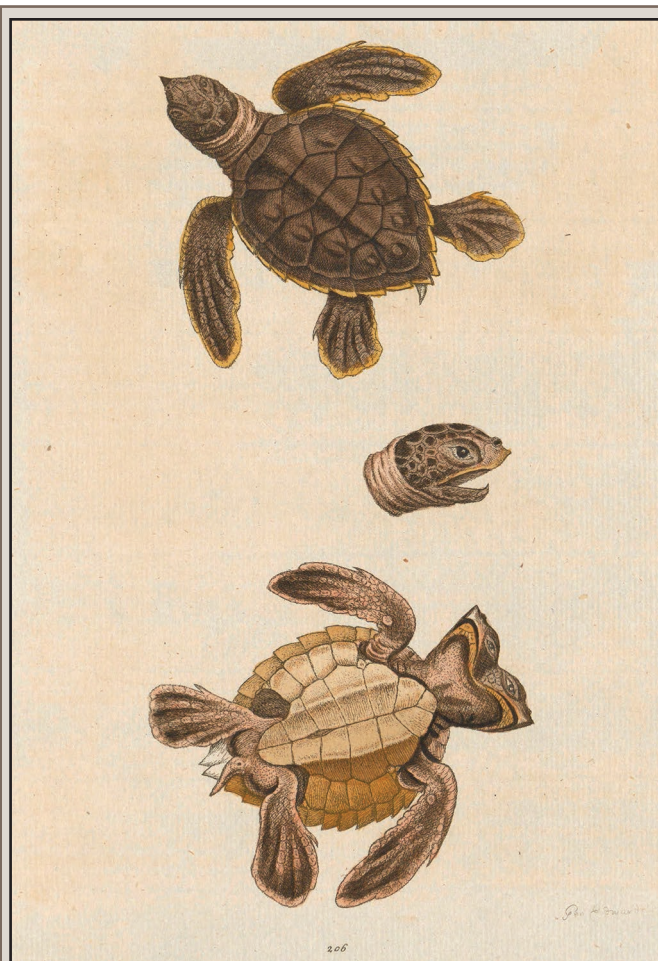


FIG. 4. This view of a two-headed sea turtle was the first published image from *A natural history of uncommon birds: and of some other rare and undescribed animals, quadrupedes, fishes, reptiles, insects, &c., exhibit in two hundred and ten copper-plates, from designs copied immediately from nature, and curiously coloured after life, with a full and accurate description of each figure, to which is added A brief and general idea of drawing and painting in water-colours; with instructions for etching on copper with aqua fortis; likewise some thoughts on the passage of birds; and additions to many subjects described in this work* by George Edwards. Imprint: London, Printed for the author at the College of Physicians in Warwick-Lane, 1743–1751.

ERNST MAYR LIBRARY, HARVARD UNIVERSITY



FIG. 5. A view of natural history cabinet from *Elenchus tabularum, pinacothecarum, atque nonnullorum cimeliorum, in gazophylacio Levinii Vincent* by Levinus Vincent 1719. [Imprint: Harlemi Batavorum : Sumptibus auctoris].

ERNST MAYR LIBRARY, HARVARD UNIVERSITY

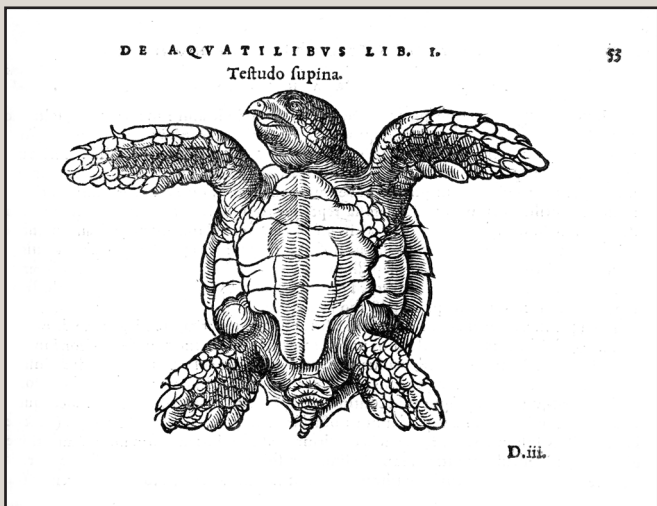


FIG. 6. Sea Turtle (*Testudo supina*) from *Petri Bellonii Cenomani De aquatilibus, libri duo : cum [epsilon, iota]conibus ad viuam ipsorum effigiem, quoad eius fieri potuit, expressis // ad amplissimum cardinalem Castillionaeum* by Pierre Belloni, 1553. [Imprint: Parisiis : Apud Carolum Stephanum ...].

a short time. 4) The only pair of identical twin Diamondback Terrapins (*Malaclemmys terrapin centrata*) to be found in over 100,000 eggs hatched at the Beaufort Station of the U.S. Bureau of Fisheries. These twins were attached to a common yolk and were two distinct individuals. Separate twin turtles can only be identified by the chance discovery of such a pair just as they have emerged from the egg. 5) Two nearly complete individuals that resulted from the development of a single egg. Most hatchling bicephalic turtles do not survive for any length of time.

The creatures that populate Joslin's world are intricate fusions of bone, brass, antique hardware, and other scavenged treasures. Infused with the Victorian era's passion for natural history and arcane technology, these creatures reflect both the real and the imagined animal, the living and the dead. Through careful observation and intricate construction, they re-imagine the animal kingdom, bolt by bolt, beast by beast. They reflect the Victorian predilection for invention and exploring science

SMITHSONIAN INSTITUTION LIBRARIES, WASHINGTON DC

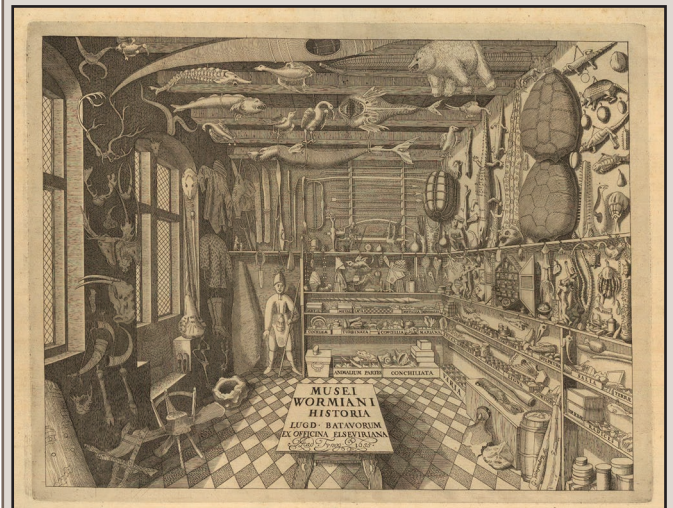


FIG. 7. Ole Worm published *Museum Wormianum; seu, Historia rerum rariorum, tam naturalium, quam artificialium, tam domesticarum, quam exoticarum, quae Hafniae Danorum in aedibus authoris seruantur. / Adornata ab Olao Worm ... in 1655*. [Imprint: Lugduni Batavorum, ex officina Elseviriorum].

ERNST MAYR LIBRARY, HARVARD UNIVERSITY



FIG. 8. Endangered Reeve's Turtle (*Chinemys reevesii*, now *Mauremys reevesii*) from *Bansho shahin zufu* (pictures of natural history objects) by Sadahide Gyokuransai in 1864. Imprint: Kyoto, Japan. Japanese populations have been introduced from neighboring countries (Suzuki et al. 2011).



FIG. 9. A sampling of the “bejeweled” turtles created by Jessica Joslin.

through the collecting of natural examples (Figs. 5–8; see references below). The precision of the engineering conveys a sense that these beasts are anatomically plausible, and the spark of life is simulated through limpid glass eyes, engaging the viewer silently and directly (Fig. 9).

Acknowledgments.—I am grateful to Jessica Joslin for providing background material and scans. Assistance was given by Judith Block, Dana Fisher, James Hanken, Robert Hansen, and Polly Lasker. George Zug suggested changes in manuscript.

REFERENCES

- BURGHARDT, G. M., J. B. MURPHY, D. CHISZAR, AND M. HUTCHINS. 2009. Combating ophiophobia: Origins, treatment, education, and conservation tools. *In* S. J. Mullin and R. A. Seigel (eds.), *Snakes: Ecology & Conservation*, pp. 262–280. Cornell University Press, Ithaca, New York.
- HILDEBRAND, S. F. 1938. Twinning in turtles. *J. Hered.* 29:243–254.

- MURPHY, J. B. 2016a. Conservation initiatives and studies of tortoises, turtles, and terrapins mostly in zoos and aquariums. Part I—Tortoises. *Herpetol. Rev.* 47:335–349.
- . 2016b. Conservation initiatives and studies of tortoises, turtles, and terrapins mostly in zoos and aquariums. Part II—Suborder Pleurodira, Suborder Cryptodira, Sea Turtles. *Herpetol. Rev.* 47:401–412.
- . 2016c. Feasting on green sea turtle soup in the Victorian Era. *Herpetol. Rev.* 47:162–164.
- , AND D. E. JACQUES. 2006. Death by snakebite: The entwined histories of Grace Olive Wiley and Wesley H. Dickinson. *Chicago Herpetol. Soc. Special Suppl.* 20 pp.
- , AND W. E. LAMOREAUX. 1978. Mating behavior in three Australian chelid turtles (Testudines: Pleurodira: Chelidae). *Herpetologica* 34:398–405.
- , AND K. MCCLOUD. 2010a. Evolution of keeping captive amphibians and reptiles. *Herpetol. Rev.* 41:134–142.
- , AND ———. 2010b. Reptile dealers and their price lists. *Herpetol. Rev.* 41:266–281.
- OBST, F. J. 1986. *Turtles, Tortoises and Terrapins*. St. Martin's Press, New York. 231 pp.
- SUZUKI, D., H. OTA, H.-S. OH, AND T. HIKIDA. 2011. Origin of Japanese populations of Reeves' pond turtle, *Mauremys reevesii* (Reptilia: Geoemydidae), as inferred by a molecular approach. *Chelon. Conserv. Biol.* 10:237–249.

NATURAL HISTORY CABINETS OF CURIOSITY AND
OPERATING THEATERS OF ANATOMY

- ASMA, S. T. 2001. *Stuffed Animals & Pickled Heads: The Culture and Evolution of Natural History Museums*. Oxford University Press, Oxford; New York. 302 pp.
- DASTON, L., AND K. PARK. 1998. *Wonders and the Order of Nature 1150–1750*. Zone Books, New York, 511 pp.
- SIMMONS, J. E. 2002. *Herpetological collecting and collections management (Revised ed.)*. SSAR Herpetological Circular 31:1–159.

BOOKS AND PAPERS ON SCIENTIFIC AND
NATURAL HISTORY ILLUSTRATIONS

- ARADER, W. G., III. 1988. *Native Grace: Prints of the New World 1590–1876*. Thomasson-Grant, Inc., Charlottesville, Virginia. 127 pp.
- BARBER, L. 1980. *The Heyday of Natural History, 1820–1870*. Doubleday, Garden City New York. 320 pp.
- BLUM, A. S. 1993. *Picturing Nature: American Nineteenth-Century Zoological Illustration*. Princeton University Press, Princeton, New Jersey. 403 pp.
- BUCHANAN, H. 1979. *Nature into Art. A Treasury of Great Natural History Books*. Mayflower Books, New York. 220 pp.
- DENNIS, D. M., AND K. ADLER. 2003. Illustrating amphibians and reptiles. In Elaine R. S. Hodges (ed.), *The Guild Handbook of Scientific Illustration*, pp. 321–337. John Wiley, Hoboken, New Jersey.
- DESMOND, R. 1986. *Wonders of Creation: Natural History Drawings in the British Library*. The British Library, London. 248 pp.
- FORD, B. J. 1993. *Images of Science: A History of Scientific Illustration*. Oxford University Press, New York. 208 pp.
- KNIGHT, D. M. 1972. *Natural Science Books in English, 1600–1900*. Praeger, New York. 260 pp.
- . 1975. *Sources for the History of Science, 1660–1914*. Cornell University Press, Ithaca, New York. 223 pp.
- LAPAGE, G. 1961. *Art and the Scientist*. J. Wright, Bristol, UK; Williams & Wilkins, Baltimore, Maryland. 115 pp.
- MURDOCH, J. E. 1984. *Antiquity and the Middle Ages*. Scribner, New York. 403 pp.
- RICE, A. L. 1999. *Voyages of Discovery: Three Centuries of Natural History Exploration*. Clarkson Potter Publishers, New York, in association with the Natural History Museum, London. 335 pp.
- ROBIN, H. 1992. *The Scientific Image: From Cave to Computer*. H. N. Abrams, New York. 239 pp.