

JASON WEEMS

War Furniture

Charles and Ray Eames Design for the Wounded Body



Photograph of Eames Splint in Use,
circa 1943

(SOURCE: DONALD ALBRECHT, *WORLD WAR TWO AND THE AMERICAN DREAM*, 1995, P. 60) IMAGE COURTESY OF THE LIBRARY OF CONGRESS.

The influence of husband and wife design team Charles and Ray Eames is ubiquitous in American culture and encompasses an array of expressive forms from architecture, interior design and furniture to the graphic arts, cinema, photography and educational exhibitions. Most well known, the Eameses' chairs with their smooth surfaces and biomorphic contours have become signature forms of postwar California culture and icons of modern design.

Surprisingly, the roots for these objects lay not in the sleek and optimistic postwar aesthetic that shaped the corporate office, airport, or suburban home, but rather in the carnage and injury of World War Two. Although Charles Eames had first experimented with molded plywood construction under the tutelage of Eero Saarinen at the Cranbrook Academy in Michigan during the late Thirties, it was in wartime Los Angeles that the design duo embarked upon their first large-scale fabrication in that medium.¹ Their product was not furniture but leg splints. In 1942 the United States Navy commissioned the Eameses to produce lightweight plywood traction splints for use on warships. The splints needed to be strong and durable enough to hold up under stress, yet also sufficiently light and nimble to facilitate easy navigation of confined shipboard spaces. Most important, they needed to provide a stable armature for the wounded human body—whose integrity and function had been compromised by laceration, fracture, burn, and other physical traumas. Like their later furniture, the Eameses married their technological innovations in compound molding to their organic and functionalist design aesthetic in order to craft a splint whose support surfaces conformed to the natural shape and composition of the human body. By war's end, over 150,000 leg splints had been produced.

Treated too often as a footnote in the narrative of their contribution to modern design, the splint in fact played a seminal role in shaping the Eameses' design philosophy.² The splint project required the designers not only to focus on the human figure in a conventional way, but also to reframe their consideration of it in terms of damage and dysfunction. If modern design had heretofore treated the human body as an idealized abstraction, these conventions appeared suddenly inadequate in face of

Boom: A Journal of California, Vol. 2, Number 1, pps 46–48. ISSN 2153-8018, electronic ISSN 2153-764X. © 2012 by the Regents of the University of California. All rights reserved. Please direct all requests for permission to photocopy or reproduce article content through the University of California Press's Rights and Permissions website, <http://www.ucpressjournals.com/reprintInfo.asp>. DOI: 10.1525/boom.2012.2.1.46.



Charles and Ray Eames (Evans Products Company, Molded Plywood Division, Manufacturer). LEG SPLINT. 1942. PLYWOOD, 3 7/8" x 42" x 7 7/8"

IMAGE COURTESY OF SAN FRANCISCO MUSEUM OF MODERN ART.

the raw corporeality of rendered flesh, shattered bones, and ruptured psyches. Rethinking the body as a once complete form now broken and compromised—a task that included Charles's use of his own body in modeling and testing the splint—pushed the Eameses into a new mindset. If healthy bodies were culturally inoffensive, wounded and disabled physiques (then and still today) invoked feelings of pain, fear, anxiety, pity, distrust, and even humiliation and shame. The etiology of broken bodies, in other words, was as much cultural and psychological as it was physical.

Its anthropomorphized contours made it feel and look like an organic extension of the limb.

Designing for these circumstances required the Eameses to bolster their usual attention to functionality and aesthetics with a new consideration: empathy. The Eames splint became a model of new ways of conceiving orthopedic devices, not only because of its innovation in materials and artistry, but also for the way that its anthropomorphized contours made it feel and look like an organic extension of the limb to which it attached. Just as the physical act of pulling traction returned the disfigured limb to normal form, the splint's visual and tactile naturalism provided a psychological armature that stabilized the spirit. Unlike other splints that made little effort to deflect the artificiality of their materials and structure, and thereby mediate the divide between natural body and industrial prosthetic, the Eames design pursued the possibility of a more organic and empathetic interconnection of subject and armature. Cutting a new path through the technophilism of wartime research, their splint positioned the body—and more importantly, the subject—as the proper focus in the Man-Machine amalgam.

When the Eameses returned to peacetime projects at war's end, they continued their concern for the needs of both mind and body. Though they did not pursue further design work with splints and prosthetics, their postwar furniture retained the substance of wartime lessons. Designed for normative (and idealized) bodies and standard spaces, the Eames chairs and lounges nonetheless retained an ethos of empathy. The Eames chair, for example, became a paragon of effective design precisely because of its deep adaptability to needs of the weary body. Its celebrated visual aesthetic, though rarely discussed in these terms, is perhaps best understood to be an outgrowth of this compassionate functionality.

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Charles and Ray Eames Lounge Chair and Ottoman, introduced in 1956. PHOTOGRAPH BY CASEY MARSHALL

While there are limits to the correlations to be drawn between the desecration of wartime injury and the weariness of middle class bodies, the Eameses' practices also have important implications for more contemporary understandings of disability design. In privileging the integrity of the body as their foremost criterion, they inverted a tendency in disability engineering to think primarily to the conditions of the technology rather than those of the human form and psyche. Likewise, their application of lessons learned from

devising leg splints to designing furniture challenged the hierarchies, distances, and divergences that American culture usually asserts between normative and differently constituted bodies. **B**

Notes

- ¹ The literature on Charles and Ray Eames is too extensive to list here. The most thorough scholarly discussion on the topic is: Patricia Kirkham, *Charles and Ray Eames: Designers of the Twentieth Century* (Cambridge: MIT Press, 1998). For more focused consideration of the Eames chair, see the recent anthology: Martin Eidelberg, Patricia Kirkham, et al., *The Eames Lounge Chair: An Icon of Modern Design* (New York: Merrill Press, 2006).
- ² One account that does consider the splint's production history in detail is the comprehensive Eames chronology: John Neuhart, Marilyn Neuhart and Ray Eames, *Eames Design: The Work of the Office of Charles and Ray Eames* (New York: Henry Abrams, 1989), 27–35 passim. I also discuss the culture of wartime research in Los Angeles and its impact on the Eameses' design philosophy in my forthcoming essay: Jason Weems, "Vision at California Scale: Charles and Ray Eames, Systems Thinking, and the Diminishing Status of the Human Body After World War Two" in *Where Minds and Matters Meet: Technology in California and the West*, ed. Volker Janssen (Berkeley: Huntington Library/University of California Press, forthcoming).