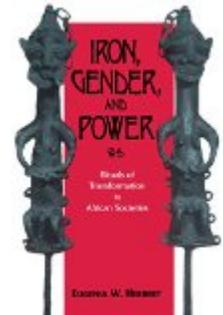


Eugenia W. Herbert. *Iron, Gender and Power: Rituals of Transformation in African Societies.* Bloomington: Indiana University Press, 1993. xii + 270 pp. \$24.95, paper, ISBN 978-0-253-20833-0.



Reviewed by Peter A. Rogers

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For much of this century, studies of African iron-working have tended toward either wide-ranging technological taxonomies on a continental (or at least sub-Saharan) scale or detailed accounts of local belief and practice. The productive processes and attendant messages of iron-working have been illuminated by both cultural anthropology and industrial archaeology, although too many analyses have conflated the temporal domains of these distinct perspectives, and the actual historical dynamics of material, social, and ideological conditions (especially for nineteenth- and twentieth-century production) remain surprisingly neglected. Notwithstanding this gap in the literature, the terms of analysis have shifted significantly over the past twenty years: from increasingly sophisticated observations on smelting furnace construction and meditations on the status and extramural roles of the blacksmith; to quantitative assessments of productive scale in certain well-documented industries, and the mapping of technique and conceptual associations based on ethno-archaeological "reconstructions" of the smelting process.

A major stumbling point in most studies of African iron-working appears with regard to the relationship between technology and belief systems, arising as much out of the epistemological limitations of archaeology and anthropology as from a tendency among many researchers to retain implicitly the problematic bifurcation of "science" and "ritual." [1] Eugenia Herbert's impressively documented and well-argued examination of iron-working as a technology of transformation confronts this and a number of other questions, while demonstrating how underlying systems of belief about gender, generation, and power are expressed across transformative activities within a vast array of cultural settings.

Specifically, Herbert sets out to show that the "procreative paradigm" so clearly at work in the smelting of iron, along with a separate axis of control predicated on age or social maturity, also underwrites the enactment of power in activities as seemingly disparate as royal investiture and hunting. That these are typically male undertakings is central to Herbert's argument: they are "key enterprises that involve transformation and access

to 'supernatural' power" and, most important, "male appropriation or replication of female procreativity" (p. 5).

A counter-example provides affirmation of her thesis: the transformative process of pottery production, typically in the hands of women (and often seen as the female analogue of blacksmithing), involves neither a comparable degree of ritualization nor a corresponding conferral of status on the producer. Potting, according to Herbert, inhabits a different "power field," which does not invoke the "violence" associated with the fusion of masculine and feminine power at play in male-directed transformative endeavors (pp. 5, 21, 233). The dual conceptualization of sexuality and age (including recurrent reference to lineage and the relaxation of certain ritual taboos in the case of children and post-menopausal women) expressed variously in iron-smelting, royal investiture, hunting, and potting (curiously, in the gendered context of her discussion, labeled on p. 220 as a "quadvirate"!) bring together for Herbert the "interplay of genders and of ancestors and living that are at the heart ... of African notions of power generally" (p. 228).

Those familiar with the author's earlier study of copper [2] will recognize once again in the present volume her remarkable grasp of the secondary literature on African metallurgy. Herbert also brings to this work a wealth of "first-hand" observations from her involvement in two commissioned smelting "reconstructions", one in Banjeli, Togo (1985), and the other in Lopanzo, Zaire (1989); the former provides the experiential basis for many of the themes she explores in *Iron, Gender, and Power*, and also constitutes the setting for a fascinating short film on iron production in this region of northern Togo.[3]

Herbert uses iron metallurgy as a "template for transformative processes," and about half of her analysis (Part I) elaborates on the conceptual dynamics of iron-working (both smelting and blacksmithing); indeed, one might say that the en-

tire analysis arises from her recognition of an apparently fundamental paradox: why is it that such a decidedly male initiative as iron-working must invoke, in so many different cultural contexts, various symbolic elements of female power in order to succeed (p. 5)?

Herbert spends the first several chapters (pp. 1-111) outlining some basic issues: the technologies, processes, and personnel involved in iron-smelting; prescriptive rituals, including both explicit and implicit engagement of procreative symbolism (furnace decoration, use of fertility medicines, modes of verbal reference, etc.); proscriptive rituals and taboos, such as rules against the presence of (menstruating) women and the prohibition against (or ritual enforcement of) sexual relations during the smelt; and the common division of labor and ritual practice between smelters and blacksmiths. This last section is particularly welcome, as this important distinction (and all its social, commercial, and ideological concomitants) has been lost on many observers. Herbert's commentary here on the relative degree of ritual expression is very much on target, as is her observation that ritual practice in the smelting of iron typically adheres to the initial investment of labor--subsequent firings and smelts conducted with standing furnaces from prior seasons seem to require less mediation.

After her account of the often distinct world of the blacksmith, Herbert's brief discussion of the powerful Central African image of "le roi-forgeron" (with further reference to the non-Bantu figures of Sunjata and Ogun) provides a nice segue into what she sees as the homologous conceptual domain of royal investiture, followed (again citing Sunjata) by a chapter evaluating the engagement of similar frameworks in the world of hunting ("Of Forests and Furnaces, Anvils and Antelopes"). A final chapter, entitled simply "Potters and Pots," attempts to confirm the genderized and generational motif of transformative power by exploring the less ritualized production of pottery as a

largely female activity with clear references to the equally female enterprises of cooking and procreation ("pots as people").

What sets these transformations by women apart from those undertaken by smelters, kings, and hunters is the absence of "the Promethean element," the danger associated with exercise of power imbued in the male manipulation of male/female and life/death complementarities (p. 233). Iron-working, royal investiture, and the hunt are transformative processes fraught with uncertainty and potential failure, hinging on ritual knowledge that takes its cue from the very foundations of human experience; on the other hand, Herbert suggests, potting, while employing some of the same procreative symbolism, operates safely within a social/conceptual realm that is "naturally" female. In the end, however, it is both "age" and "gender" that enforce African cosmologies of transformation. Authority resides in those who are old, power accrues to those who control (symbolically or otherwise) female fertility. Such conditions are finally played out, in so many different contexts, with the achievement of "genderless" identity among post-menopausal women.

Herbert's mode of analysis is decidedly cross-cultural, at least within sub-Saharan, relatively centralized, non-pastoralist, and fairly well-documented areas of Africa. This comparative ethnographic approach will no doubt strike some readers as a major limitation, harkening back to the bad old days of structural-functionalist and diffusionist paradigms. On the other hand, Herbert is not one to play fast and loose with the available data, and her ability to traverse (much of) the continent is extraordinary if somewhat dizzying (a helpful map of fifty-one "most frequently cited ethnic groups" faces page one; this is a good place for many readers to install a bookmark for quick reference!).

As for geographical purview, West, Central, and East-Central Africa receive the most attention, if only because this is where most of the research

on iron-working has taken place; Southern and Eastern Africa are underrepresented in this regard, while the Horn and Northern Africa are virtually absent as loci of primary investigation and therefore in Herbert's review. The ground covered in the sections on hunting and potting is rather more limited than in the chapters on iron-working and royal investiture. Of course, the issue of boundaries and beliefs is almost by definition problematic; as Herbert admits, citing Eliade and others, several elements of the procreative and generational paradigms associated with transformative endeavors occur well beyond the African continent (pp. 235-36). And perhaps more important, in a compendium of things and ideas "African," we come up against the familiar enigma of what constitutes "Africa."

While *Iron, Gender, and Power* is indeed ground-breaking on several levels (especially its reading of belief systems across productive spheres), it should be noted that there is nothing new about the association between iron-working and gestation/procreation or the scholarly "genre" of trans-cultural iron-working studies. The former was recognized, however crudely, by many of the earliest European observers, and sweeping attempts at generalization in the face of bewildering variety, though obviously not so skilled as this, have been a common staple of writing on African iron-working since at least 1909 (with notes and researches on individual industries appearing several decades earlier and continuing up to the present).

Herbert's sources reflect this disparate literature, and include (by necessity?) the sketchiest descriptions of early travelers as well as the most elaborate accounts among the four dozen or so commissioned "reconstructions" of iron smelting undertaken by various researchers since about 1930 (listed in the Appendix), and a great deal in between. To her credit, Herbert readily acknowledges at several points the difficulty of working with such materials, and openly invites other

scholars to "confirm, refute, or modify" her hypotheses and conclusions, making her project more a "challenge" than an "assertion" (pp. 21-22; see also pp. 234-36).

Another strength of this study is Herbert's keen and subtle discussion of gender-related expressions in both material and processual contexts. She is careful to consider both overt and covert instances of genderization in all of the activities presented, and rightly asks, following Ardener and others, whether women's versions of such formulations necessarily conform to those examined here (which are, after all, gathered mostly from male informants). The concluding chapter, "Anthropomorphism and the Genderization of Power," is an elegant meditation on the cosmological order of gender, power, belief, and ritual in African technologies of transformation.

Having presented a largely positive reaction to Herbert's study, I would like to point out a few problems I have with her analysis. Depending on one's disciplinary perspective, these criticisms may seem troubling or trivial. At any rate, a project as daringly extensive as *Iron, Gender, and Power* is sure to raise certain questions. In the end, of course, readers should be reassured that the primary value of an undertaking such as Herbert's is its ability to attract serious debate.

Those who expect to find sustained *historical* argumentation from this analysis will be disappointed. This may be the price paid for the kind of comprehensive coverage Herbert attempts, but it is a heavy cost. The absence of a historical voice and attendant methodological rigor is unfortunately still common in studies of African technologies and material culture, and in these areas iron-working especially seems to lag far behind. Countless inquiries, both comparative and particular, provide us with a wealth of information about all aspects of iron-working, while haphazardly interpolating archaeological, metallurgical, ethnographic, oral-historical, and ethno-archaeological data in a seamless historical indetermina-

cy. It is true that the "traditional" smelting of iron (unlike blacksmithing) died out in most parts of Africa several decades ago (only to be resurrected here and there for demonstration purposes by curious researchers!). But while Herbert's historical sensibility is more acute than most, her characterization of African iron-working locales as "essentially ... 'archaeological sites'" ("All that separates them for the moment from 'absolute archaeology' is the fact that one can still find actors in this industry and with their help reconstruct its outlines") is somewhat misleading (pp. 11-12). Such pronouncements do little more than reproduce the temporal no-man's land that features so prominently in all but the most "literally" archaeological (that is, firmly dated) studies.

Only a handful of researchers have successfully charted the course of African iron-working through the immediate zones of nineteenth- and early-twentieth-century history, using contemporary data in their proper historical context.^[4] One set of circumstances that has yet to be elaborated fully at the local level is the replacement of native smelted iron with imported scrap metal as the material of choice for blacksmiths, especially in those areas where this transformation occurred in the midst of a maturing colonial economy. Most writers on African iron-working, Herbert included, whose purview includes this period have noted that the smelting of iron simply stopped; but how, when, why, and where did this happen? Surely such displacements in the organization of production must have influenced belief systems associated with iron-working.

One might posit the same questions of changes in the larger economic or cultural milieu, especially (though not exclusively) during the colonial period: the effect of shifting labor dynamics on patterns of male and female production; the role of Islam (hardly mentioned by Herbert) in (re)shaping ritual; the impact of Christianity on ideas of fertility or gender symbolism. Whether from disposition or area of expertise, most re-

searchers have so far ignored the wealth of auxiliary information available from colonial archives, including district assessment reports, agricultural despatches, import/export records, and railway construction files. These sources are of course subject to their own biases, and require careful interpretation, but they remind us of the larger contexts in which local iron production did (or did not) occur, and help to anchor our analysis historically. Could it be that researchers have been reluctant to document change in colonial-era iron production for fear of inadvertently suggesting a changeless (pre-colonial) past, or of having to confront the hoary predicament of colonial/pre-colonial periodization?[5]

Unfortunately, Herbert's cross-cultural observations, while revealing what appear to be fundamental ideas about gender, power, and processes of transformation, fail to consider such historical contingencies in any systematic manner. For example, the section (pp. 112-14, a "coda" to Chapter 4, "The Smith and the Forge,") on iron-based systems of bridewealth payment engages Jane Guyer's astute work from southern Cameroon, but is much too cursory a treatment of this eminently historical, gender-laden, and power-related topic. On the basis of the available evidence, her arguments are indeed compelling, but what of the counter-examples, including inconsistencies among descriptions of the same industry over time (for example, Fipa in SW Tanzania, Bassari in N Togo, Mafa in N Cameroon)? Such questions are dealt with briefly in a section entitled "Negative Evidence and the Problem of Change" (pp. 120-26); Herbert's discussion here is searching but inconclusive.

She does acknowledge "tantalizing hints of fundamental changes in the organization of iron-working resulting from dynamics internal to the craft and from regional borrowings well before the intrusion of the colonial economy and westernization" (p. 121). But we simply have too few studies that explicitly document such change (Ian

Fowler's outstanding work on the late-nineteenth-century Babungo [Cameroon Grassfields] industry provides Herbert with most of her reflections on historical mediation). There are unresolved questions here about the scale of production, the dynamics of specialized knowledge, and changing degrees of ritualization, but in the absence of sufficient evidence, a state of continuity is assumed to hold in regard to the belief systems associated with the working of iron. Indeed, in those cases where key ritual or operational elements of the procreative paradigm are "absent" (such as in several written accounts from mid-century, or in more recent ethno-archaeological "reconstructions"), Herbert suggests that conceptual models of this type are so self-evident to the actors that their outward expression, in either words or procedures, may be deemed unnecessary.

There is some very penetrating discussion throughout Herbert's study about "symmetries" and "asymmetries" in the context of symbolic systems, especially as they occur across and between the domains of iron-working, investiture, hunting, and potting. And yet, as she herself admits (p. 235), these and relational terminology as "analogy, metaphor, metonym, [and] equivalence" may be inadequate for the purposes of conveying "ideas of causality that are at variance with those of the post-Newtonian west." The significance of such conceptual operations to historical circumstance is equally unclear. There is, I think, no better indication of this than the ambiguities enshrined in the recent smelting "reconstructions" that provide grist for many of Herbert's arguments.

What do such experiments mean? What is their relationship to conditions and contingencies at work fifty years ago? Eighty years ago? Are there significant, identifiable differences in the mechanisms and meanings of reconstructed smelting procedure between recent times and earlier periods, when observations were made while iron-smelting was still locally viable? Only

by anchoring our perspective in historically specific terms will text and testimony reflect the connection between present and past.

Serious as these quibbles may be, *Iron, Gender, and Power* is both insightful and accessible, and it has already been recognized as a milestone among anthropologists and historians of African metallurgy. While the analysis bears diminishing returns in the sections on hunting and potting, Herbert's command of the literature is remarkable, and she goes to great lengths to reckon with lacunae in the available data. This study proved very effective in a seminar I have taught on technology and society in African history, which included units on agriculture, iron-working, pottery, and cloth production. I would also recommend it highly to anyone teaching courses on gender in Africa. Although daunting in its geographical scope and the multiplicity of issues it raises, Herbert's book deserves to be included in any African studies library collection.

Notes

[1] Recent work by Terry Childs proposing the concept of "technological style" may be seen as an attempt to reconcile these two spheres. The idea represents a "formal integration of the behavior chosen during the manufacture and use of material culture which, in its entirety, expresses social information," and is basic to Herbert's exposition (p. 18). S. Terry Childs, "Style, Technology, and Iron Smelting Furnaces in Bantu-Speaking Africa," *Journal of Archaeological Anthropology* 10 (1991): 332-59.

[2] Eugenia W. Herbert, *Red Gold of Africa: Copper in Precolonial History and Culture* (Madison: University of Wisconsin Press, 1984). *Iron, Gender, and Power* is, however, a decidedly different sort of study, not "a sequel on the cultural history of iron.... Rather, its topic is the belief system underlying the working of iron, especially iron smelting, and the extent to which this belief system also underlies other core acts of transformation..." (p. x).

[3] Carlyn Saltman, Candice Goucher, and Eugenia Herbert, *The Blooms of Banjeli: Technology and Gender in West African Ironmaking* (Watertown, Mass.: Documentary Educational Resources, 1986), video. For a recent overview of the project, see the identically titled article, by Candice L. Goucher and Eugenia W. Herbert, in *The Culture & Technology of African Iron Production*, ed. Peter R. Schmidt (Gainesville: University of Florida Press, 1996), 40-57.

[4] See, for example, Philip J. Jaggar, "The Blacksmiths of Kano City: A Study in Tradition, Innovation and Entrepreneurship in the Twentieth Century" (M.Phil. thesis, University of London, 1978) [revised version published in the *Westafrikanische Studien* (Bd. 2) of the *Frankfurter Beiträge zur Sprach- und Kulturgeschichte* (Köln: Rudiger Koppe Verlag, 1994)]; J.-P. Warnier and Ian Fowler, "A Nineteenth-century Ruhr in Central Africa," *Africa* 49 (1979): 329-51; Marcia Wright, "Iron and Regional History: Report on a Research Project in Southwestern Tanzania," *African Economic History* 14 (1985): 147-65; David Killick, "Technology in its Social Setting: Bloomery Iron-Smelting at Kasungu, Malawi, 1860-1940" (Ph.D. diss., Yale University, 1990); Ian Fowler, "Babungo: A Study of Iron Production, Trade and Power in a Nineteenth Century Ndop Plain Chieftdom (Cameroon)" (Ph.D. diss., University College London, 1990); and Nicholas David and Ian Robertson, "Competition and Change in Two Traditional African Iron Industries," in Schmidt, *Culture & Technology*, 128-44.

The continuing underdeveloped history of African technologies, especially for the late nineteenth and twentieth centuries, explains in large part why Jaggar's insightful yet minor work, reissued in slightly revised monograph form under the same title in 1994, still gains attention after almost twenty years. My own forthcoming dissertation (University of Wisconsin-Madison, 1996) on social and commercial dynamics of iron-smelting in adjacent areas of northern Nigeria, c.

1890-1950, represents a further effort to place indigenous technology within late pre-colonial and early colonial historical perspectives.

[5] The suite of messages across time and space relating to the appropriation of female procreativity is indeed striking, but what of historical transmutations of such messages? More than any other industry, Fipa iron-smelting (SW Tanzania) has attracted recurrent observation and description, with contemporary published accounts appearing in 1913, 1914, 1937, 1949, 1956/58, 1967/73 (based on a demonstration in Dar es Salaam), and 1990/96; Herbert uses the Fipa industry as one of four case studies to examine smelting rituals (pp. 56-65). Among the hundreds of descriptions we have of iron-smelting in sub-Saharan Africa, these accounts are quite comprehensive, though of course any comparison between them, as a localized measure of either change or stability, must be rather tentative.

Moreover, interpretive caution must be exercised in light of the fact that the accounts from 1956/58, 1967/73, and 1990/96 were drawn from commissioned reconstructions (interestingly enough, the same two master smelters were in charge of the 1956 and 1967 demonstrations). Yet, I am intrigued by one apparently shifting feature in the ritual application of gender/fertility symbolism. The central place of the master smelter's *intangala*, the basket of ritual substances that confer upon him authority and power, remains "constant" in all accounts.

On the other hand, one of the final treatments of the furnace before the clay dries completely seems to undergo modification. At this stage, according to most accounts, the furnace is likened to a bride. According to most of the earlier smelting accounts, white flour and a reddish-brown powder called *nkulo*, the latter being applied facially to the bride (and possibly, by a more recent reckoning, to the chest and upper back of both bride and groom), were dusted onto the finished furnace. Thus, in R. Wise's description from the 1956

demonstration, "The building of the kiln takes two days.... At the end of the first day, and several times during the second, the two children [a boy and a girl of about 10 or 12 years of age] decorate the outside of the kiln with splashes of flour and *nkulo*."

At the comparable point during J.A.R. Wembah-Rashid's 1967 reconstruction, the furnace was "annoint[ed] ... with oil and paint[ed] ... white to reflect a bride in wedding costume." Finally, in Randi Barndon's 1990/91 ethno-archaeological demonstration, the constructed furnace "is decorated with white flour and praised as a marriageable woman (*nawiinga*)." Here, *nkulo* is not part of the symbolic preparation of the furnace-bride, but the substance is still used by the master smelters, a bit earlier in the process: "Preparations for the smelt start when ... the smiths each color their foreheads with a red powder (*unnkolo*). The red powder is normally used in wedding ceremonies by the bride and her relatives to symbolize fertility; during iron smelting it will mark those who are professional iron smelters."

I am informed that neither flour nor any other white substance has been a component of "traditional" Fipa marriage preparations/ceremonies. Does this "recent" and apparently more central place of flour (as opposed to *nkulo*) as a medium of furnace-bride decoration represent the influence of Christian color symbolism and matrimonial practice? And how should we interpret the increasing reference to the use of Christian prayers by some iron-smelters in the accounts from 1914 on? R. Wise, "Some Rituals of Iron-Making in Ufipa," *Tanzania Notes and Records* 51 (1958): 234; J.A.R. Wembah-Rashid, "Iron Workers of Ufipa," *Bulletin of the International Committee on Urgent Anthropological and Ethnological Research (UNESCO)* 11 (1969): 66-67; Randi Barndon, "Fipa Ironworking and its Technological Style," in Schmidt, *Culture & Technology*, 66-67; Kathleen Smythe, personal communication, 17 July 1996. See also Wright, "Iron and Regional History" and

Sidney J. LeMelle, "Ritual, Resistance and Social Reproduction: A Cultural Economy of Iron-Smelting in Colonial Tanzania 1890-1975," *Journal of Historical Sociology* 5, no. 2 (June 1992): 161-82.

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