Table 1.. Old World Cultivated 'Millets'

Species	Common Name	Region of Origin and Cultivation
Brachiaria ramosa (L.) Stapf.	Browntop millet, pedda-sama	South India
Brachiaria deflexa (Schumach) C. E. Hubbard var. *sativa* Porteres	Guinea millet, Animal Fonio	Fouta Djalon Highlands, Guinea, W. Africa
Coix lacrhyma-jobi L.	Job's tears [not always regarded as a millet; taxonomically closer to maize]	Northeast India, Southeast Asia, Southern China
Digitaria cruciata (Ness) A. Camus var. *esculenta* Bor	Raishan	Khasi Hills, Assam; Hill tribes of Vietnam
Digitaria exilis (Kippist) Stapf.	Fonio, Acha, Fundi	West Africa
Digitaria iburu Stapf.	Black Fonio, Iburu, Hungry Rice	West Africa
Digitaria sangiuinalis (L.) Scop.	Harry crabgrass	Eurasian origin; cultivated in Kashmir, formerly in Europe
Echinochloa colona ssp. frumentacea (Link) De Wet, Prasada Rao, Mengesha and Brink (=*E. frumentacea* Link)	Sawa Millet	Peninsular India(?), also cultivated in Himalayas
Echinochloa crus-galli var. *utilis* Yabuno	Barnyard Millet	Japan, Korea, northeast Asia
Eleusine coaracana (L.) Gaertn.	Finger Millet, ragi	East African highlands
Eragrostis tef (Zucc.) Trotter	Teff	Ethiopian highlands
Panicum miliaceum L. ssp. *Miliaceum*	Proso millet	China, and SE Europe(?)/ Caucasus; cultivated throughout South Asia
Panicum sumatrense Roth. ex Roem. & Schult. Subsp. *sumatrense* (syn. *P. miliare* auct. pl.),	Little millet, samai	India, especially peninsula
Paspalum scrobiculatum L.	Kodo millet	India, especially peninsula and Himalayas
Pennisetum glaucum (L.) R. Br (= *P. americium* (L) Leeke)	Pearl Millet	West African Savannah, cultivated through India
Setaria italica (L.) P. Beauv ssp. *italica*	Foxtail millets	China, and SE Europe(?)/ Caucasus, cultivated throughout South Asia and in parts of Southeast Asia
Setaria pumila (Poir.) Roem & Schult. (syn. *S. glauca* auct. pl.)	Yellow foxtail millet, korali	India (domesticated populations reported)
S. verticillata (L.) P. Beauv.	Bristley foxtail millet	South India (domesticated populations??)
Sorghum bicolor (L.) Moench. ssp. *bicolor*	Sorghum, jowar	African Savannahs, cultivated throughout South Asia

Table 2. New World millets

Species	Common Name	Region of Origin and Cultivation
Bromus mango Desv.	Mango [taxonomically closer to barley than other millets	Chile: Andes
Panicum sonorum Beal (=*P.hirticaule* J. Presl. var. *millaceum* (Vasey) Beetle)	Sauwi millet	American Southwest
Setaria parviflora (Poir.) Kerguélen	Knot-root foxtail	Mesoamerica
Setaria macrostachya Humboldt, Bonpland & Kunth	*Ne-kuuk-suuk* (Mayan)	Mesoamerica, cultivated(?) before rise in importance of Maize

Table 3. A comparison of nutritional components of millets and "big" cereals

Grain Type		Protein (g) (Nx6.25)	Fat (g)	Ash (g)	Crude fiber (g)	Carbs (g)	Energy (kcal)	Ca (mg)	Fe (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)
Small millets	**Common millet**	12.5	3.5	3.1	5.2	63.8	364	8	2.9	0.41	0.28	4.5
	Foxtail millet	11.2	4	3.3	6.7	63.2	351	31	2.8	0.59	0.11	3.2
	Barnyard millet	11	3.9	4.5	13.6	55	300	22	18.6	0.33	0.1	4.2
	Kodo millet	9.8	3.6	3.3	5.2	66.6	353	35	107	0.15	0.09	2
	Little millet	9.7	5.2	5.4	7.6	60.9	329	17	9.3	0.3	0.09	3.2
	Finger millet	7.7	1.5	2.6	3.6	72.6	336	350	3.9	0.42	0.19	1.1
Large millets	**Pearl millet**	11.8	4.8	2.2	2.3	67	363	42	11	0.38	0.21	2.8
	Sorghum	10.4	3.1	1.6	2	70.7	329	25	5.4	0.38	0.15	4.3
Comparable grains	**Wheat**	11.6	2	1.6	2	71	348	30	3.5	0.41	0.1	5.1
	Maize	9.2	4.6	1.2	2.8	73	358	26	2.7	0.38	0.2	3.6
	Rice (brown)	7.9	2.7	1.3	1	76	362	33	1.8	0.41	0.04	4.3

Sources: FOA 1995: Hulse. Laing and Pearson. 1980: U.S. National Research Council/ NAS. 1982: USDA/HNIS. 1984

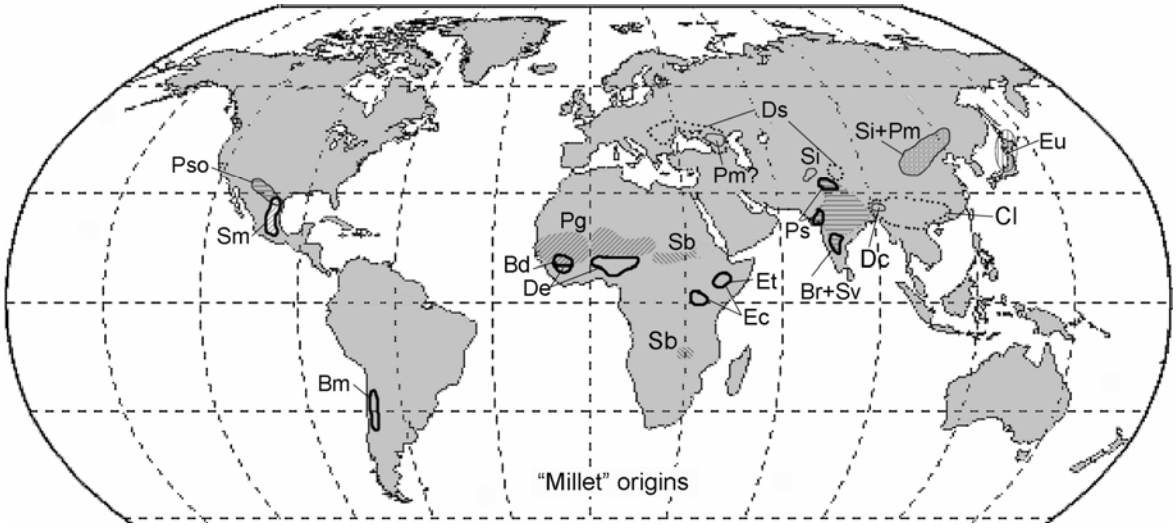

Figure 1. The map of likely centres of origin for "millets." Millets abbreviated: Pso: *Panicum sonoran;* Sm: *Setaria* cf. *macrostachya*; Bm: *Bromus mango*; Bd: *Brachiaria deflexa*; De: *Digitaria exilis*; Pg: *Pennisetum glaucum*; Sb: *Sorghum bicolour,* including Southern African zone where the race *kafir* may be an independent domesticate; Ec: *Eleusine coracana*; Et: *Eragrostis tef*; Ds: *Digitaria sanguinalis*; Pm: *Panicum miliaceum,* a separate Western origin remains unconfirmed; Si: *Setaria italica*; Ps: *Panicum sumatrense*: Br: *Brachiaria ramosa*; Sv: *Setaria verticillata*; Dc: *Digitaria cruciata*; Cl: *Coix lachrymal-jobi*; Eu: *Echinochloa crus-galli* var. *utilis.* The striped zone in India indicates the broader Indian millet zone within which several domestications remain to be better localized (*Paspalum scrobiculatum, Echinochloa colonum, Setaria pumila*), in addition to possible multiple domestications of *Brachiaria ramosa.*

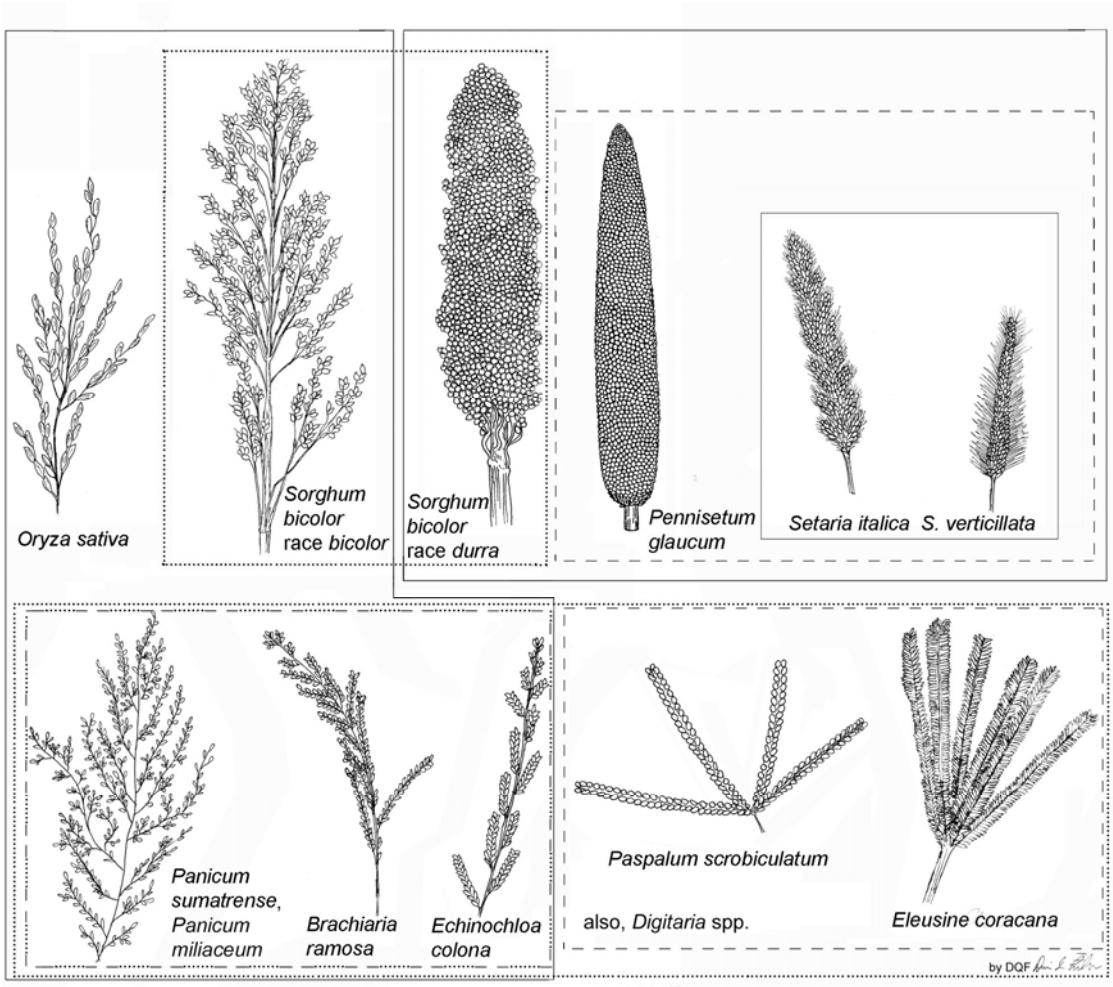

Figure 2. The panicle form of selected millet crops, with rice for comparison. Lines of various types group cereals that have similar morphological attributes that might make them prone to linguistic confusion (such as semantic shift). (From Fuller 2006)

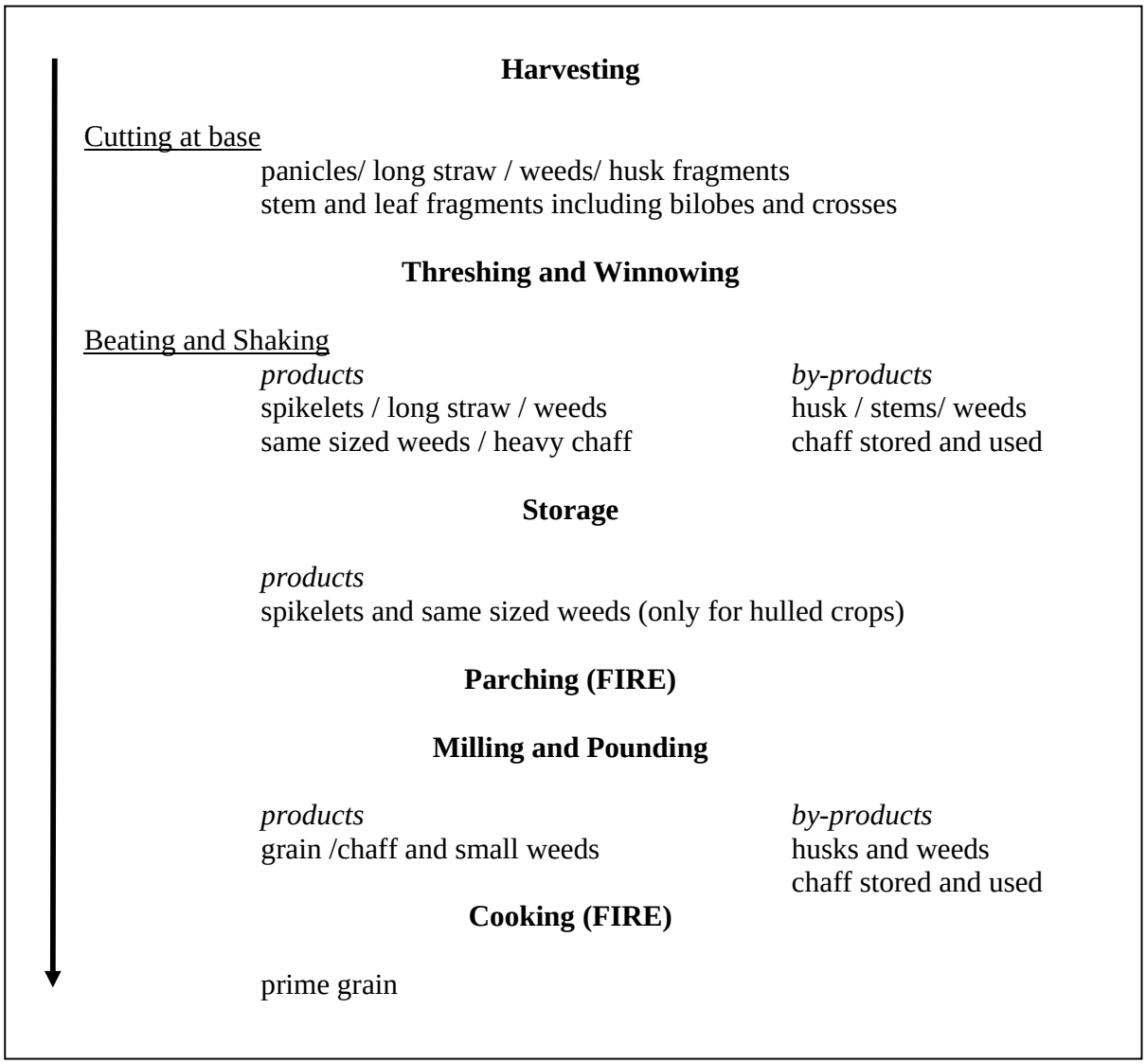

Figure 3. Management of small headed hulled millets (Modified from Harvey and Fuller 2004; Reddy 1997; 2003).

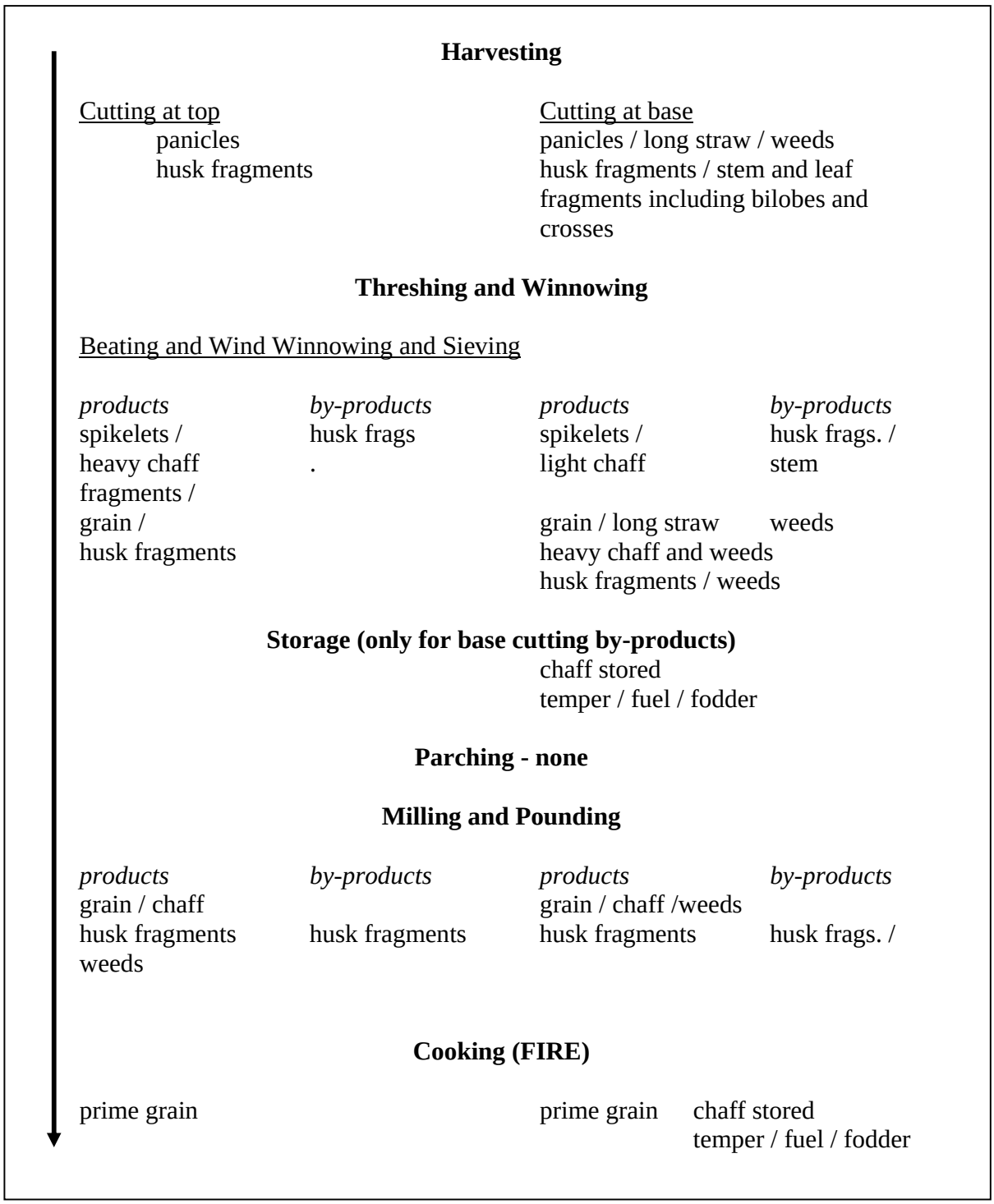

Figure 4. Management of large headed millets (Modified from Harvey and Fuller 2004; Reddy 1997; 2003).

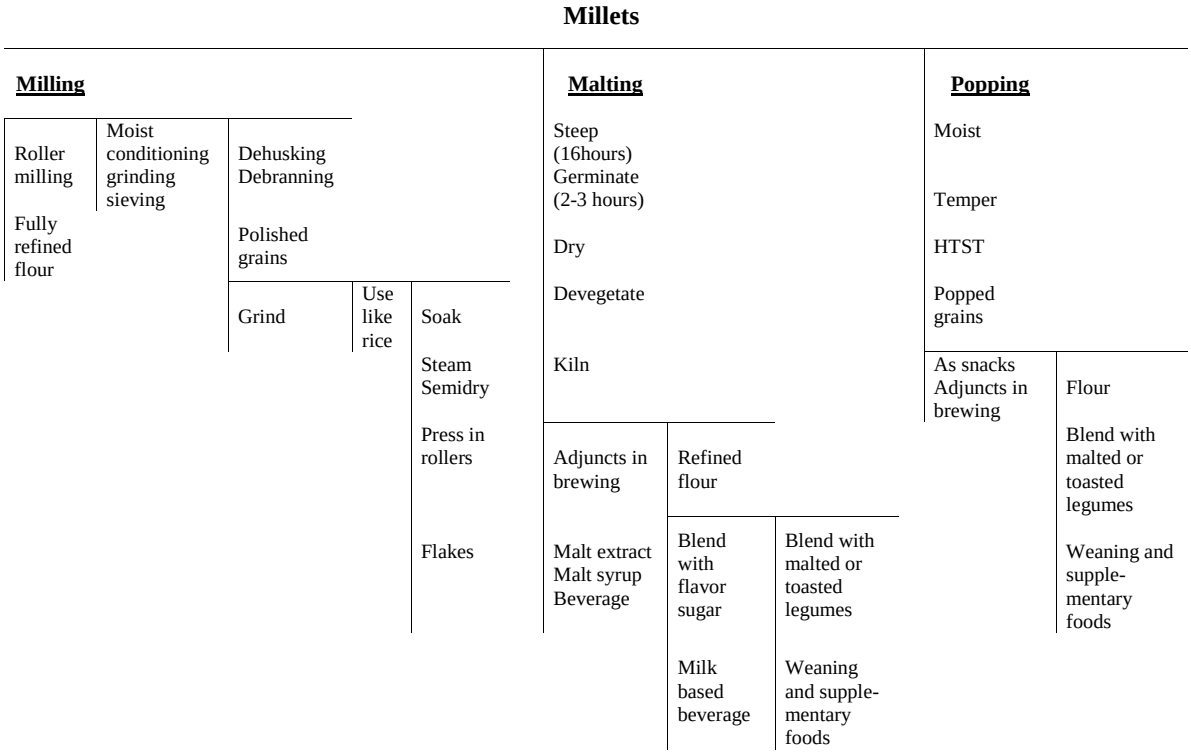

Figure 5. Processing of small millet: some alternatives. Note: parboiling is not shown.

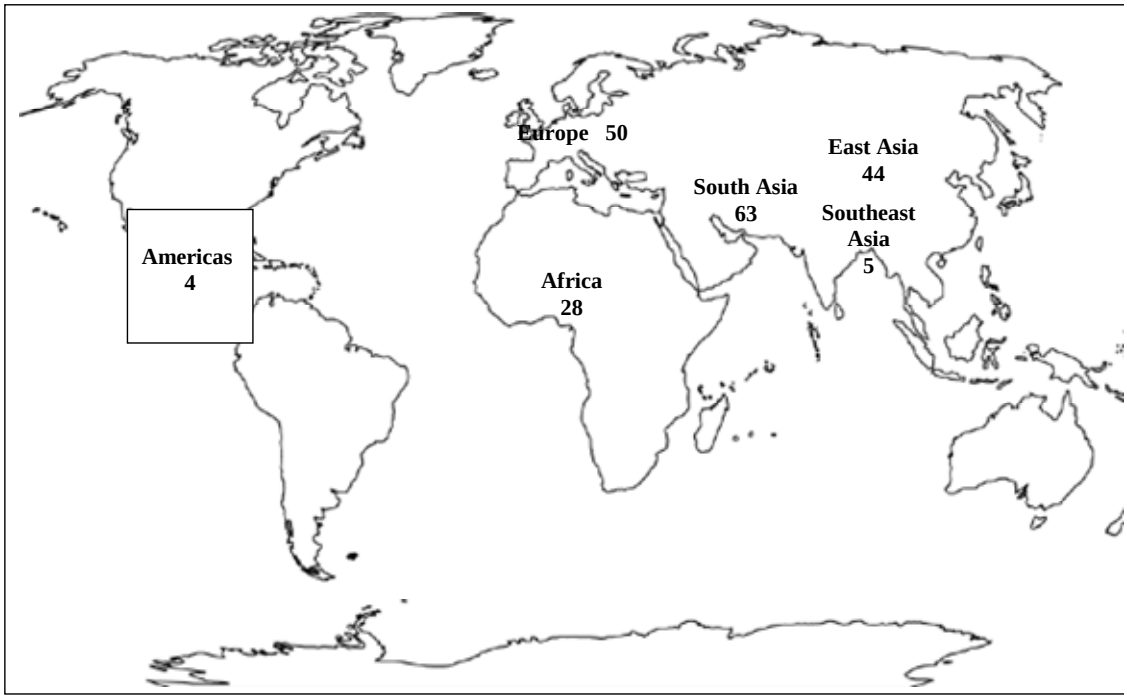

Figure 6. A rough tabulation of archaeological evidence for millets, indicating the number of archaeological sites with millets for each region of the world. The total number of sites : 194