(a)   (b)   (c)

Fig. 2. Skeleton of silhouette figure. (a) Definition of the skeleton, (b) a silhouette figure of ibex from Tashbayeva *et al.* (2001), (c) skeleton of the ibex in (b).
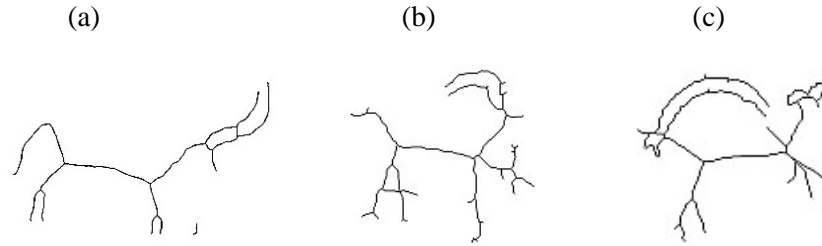
(a)   (b)   (c)

Fig. 3. Skeletons of figures of ibexes from Tashbayeva *et al.* (2001). Their shape codes are:

(a) N · · · · · · · HHC · · · · ·N · · · · · · · LB · · · · · ·B · · · · · · · LB · · · · · ·T · · · · · · ·
(b) N · · · · · · · HB · · · SSS N · · · · · · · LL · · · S S S B · · · · · · · L B C· · SSS T · · · · S· ·
(c) N · C· · S · · HH · · · SSS N · · · · · · · LB · · · S · · B · · · · · · · LB · · · S · ·T ·C C· S S ·

Table 1. List of seven archaeological sites with ages. "Middle point": the years at the middle points of the intervals shown in "Age", "Map": the numbers of the sites in Fig. 4.

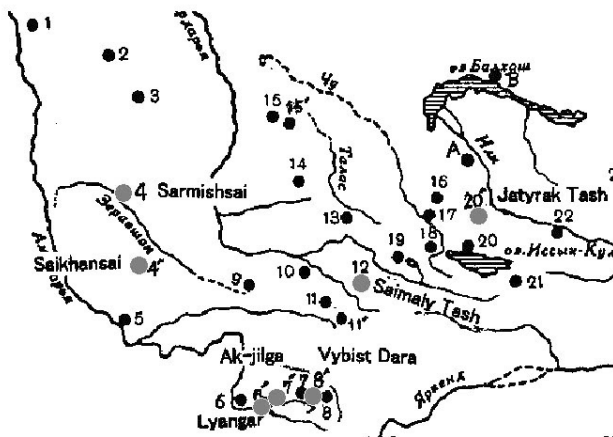| Country	Location	Age	Middle point	Map
Kyrgyzstan	Saimaly Tash	neolithic-bronze	3,500 B.C.	12
	Jatyrak Tash	bronze-iron-A.D.	1,700 B.C.	20′
Uzbekistan	Sarmishsai	neolithic bronze	3,500 B.C.	4
	Saikhansai	bronze	2,500 B.C.	4′
Tadjikistan	Ak-jilga	bronze	2,500 B.C.	7′
	Lyangar	A.D.3-5c.	350 A.D.	6′
	Vybist Dara	A.D.1-6c.	300 A.D.	8′

Fig. 4. Archaeological sites in Central Asia covering parts of Uzbekistan, Kazakhstan and Tadjikistan. Some sites are added to the map by Sher (1980). The larger dots with names are the sites treated in this work.

ing out of the body, an additional symbol 'C' (1 connection), 'CC' (2 or 3) or 'CCC' (more than 3) are added. Thus, existence of loops is expressed in this way.

• If several spines come out of a part of body, reflecting the roughness of body contour, symbols 'S' (1 spine), 'SS' (2 or 3) or 'SSS' (more than 3) are added. Ears or penis is looked upon as a spine.

For easy comparison among symbols of skeletons, each of seven parts of a body is given eight fields for writing symbols, so that one skeleton is expressed by a symbol array of 56 fields, which is called a *shape code*. Symbols for closed loops and spines are written at particular positions within eight fields of respective parts. As examples, the shape codes of the three ibexes are shown in Fig. 3. The degree of difference of two skeletons is defined by the number of fields with different symbols. Thus, the differences of the ibex pairs (a)–(b), (b)–(c) and (c)–(a) in Fig. 2 are 14, 12 and 12, respectively.