

APPENDIX C

THE PAYNE SYSTEM FOR RECORDING ATTRITION IN SHEEP/ GOAT MANDIBLES

After Payne (1973)

Recording attrition

Symbols for successive stages of attrition in the lower first or second permanent molar, third permanent molar and fourth deciduous premolar are reproduced with the permission of Sebastian Payne. They are noted down in the field, to record each suitable tooth.

Attrition stages

After recording, each mandible is assigned to one of the following stages:

- A deciduous fourth premolar still unworn
- B deciduous fourth premolar in wear, first molar unworn
- C first molar in wear, second molar unworn
- D second molar in wear, third molar unworn
- E third molar in wear, distal cusp unworn
- F distal cusp of third molar in wear, third molar pre-
- G third molar , second molar
- H third molar , second molar post-
- I third molar post-

Step 1. All jaws that can be assigned to attrition stages on this basis. The number of cases in each stage is called the Raw Count. Not all jaws can be directly assigned in this way, because of missing or damaged teeth.

Step 2. Attrition symbols are arranged in order of increasing wear, for each tooth type separately. These symbol series are then tabulated against attrition stage. From this, the range of attrition stages associated with each state of wear in each tooth can be determined. Many jaws which have not been assigned to a stage in step 1 may be assigned on the basis of these tables. All of these, excluding those which do not have a recordable deciduous fourth premolar or

third molar, are then added to the raw counts, to give the Corrected Counts. *Step 3.* Some jaws can only be assigned to a range of attrition stages, rather than one particular stage. These are shared out between the stages that they overlap, on the basis of the existing corrected counts for those stages. This yields a Final Corrected Count.

Suggested ages

Payne (1973) gave suggested ages for each of the attrition stages. These have to be regarded only as suggestions, not definite ages.

Stage	Suggested age
A	0-2 months
B	2-6 months
C	6-12 months
D	1-2 years
E	2-3 years
F	3-4 years
G	4-6 years
H	6-8 years
I	8-10 years

third molar, are then added to the raw counts, to give the Corrected Counts. *Step 3.* Some jaws can only be assigned to a range of attrition stages, rather than one particular stage. These are shared out between the stages that they overlap, on the basis of the existing corrected counts for those stages. This yields a Final Corrected Count.

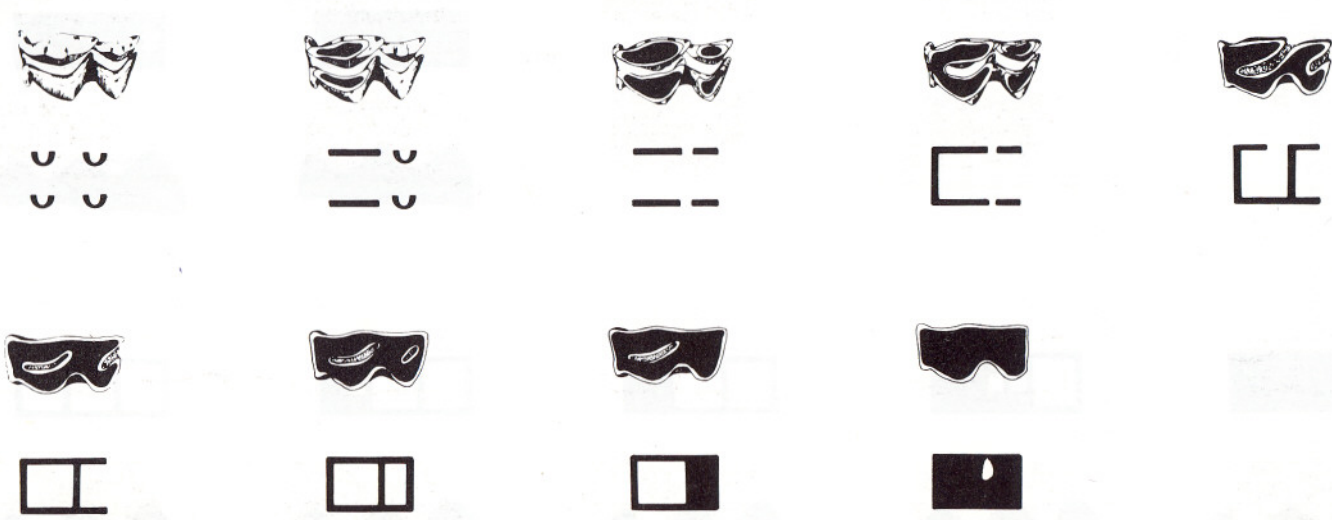
Suggested ages

Payne (1973) gave suggested ages for each of the attrition stages. These have to be regarded only as suggestions, not definite ages.

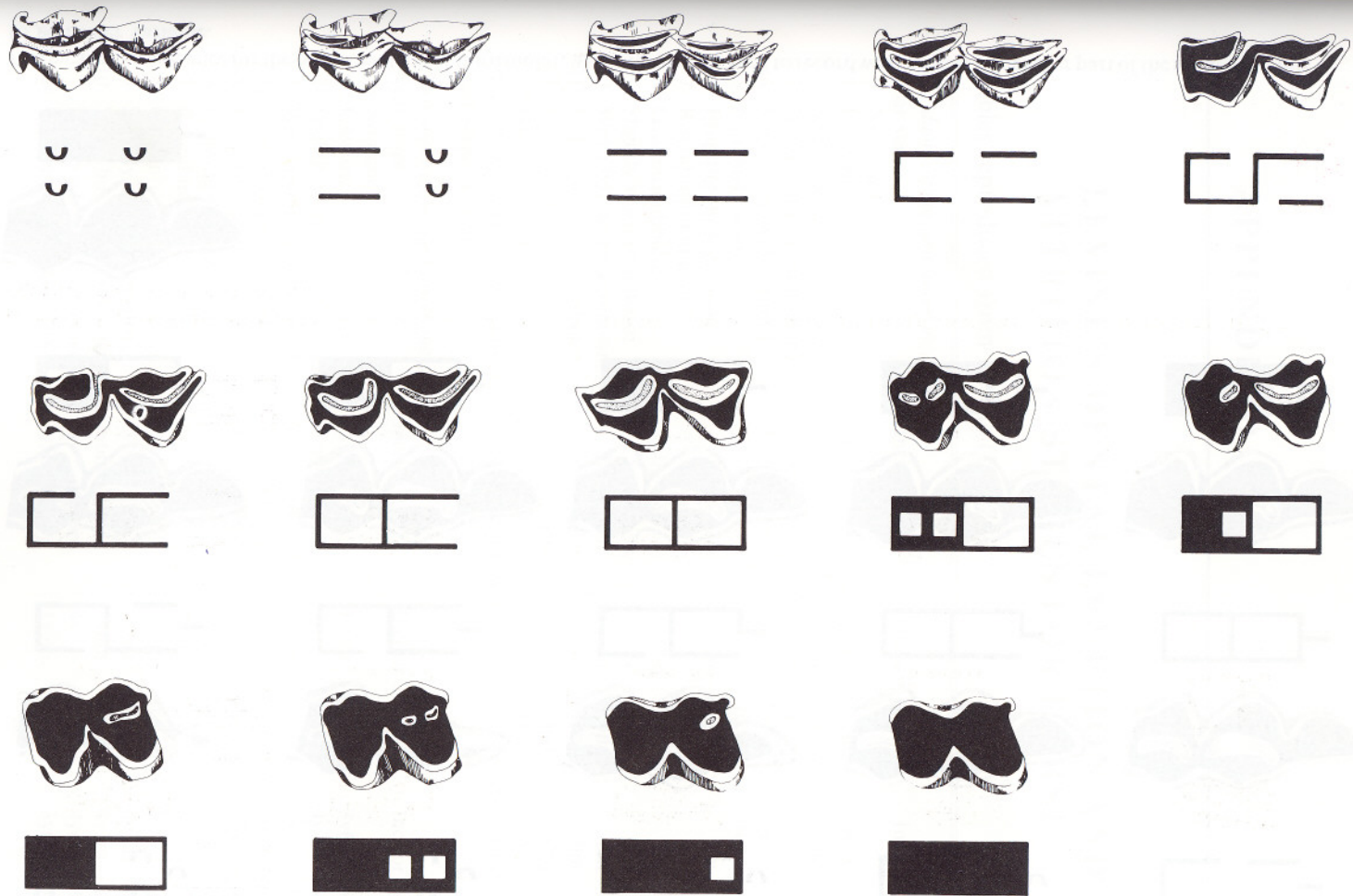
Stage	Suggested age
A	0-2 months
B	2-6 months
C	6-12 months
D	1-2 years
E	2-3 years
F	3-4 years
G	4-6 years
H	6-8 years
I	8-10 years



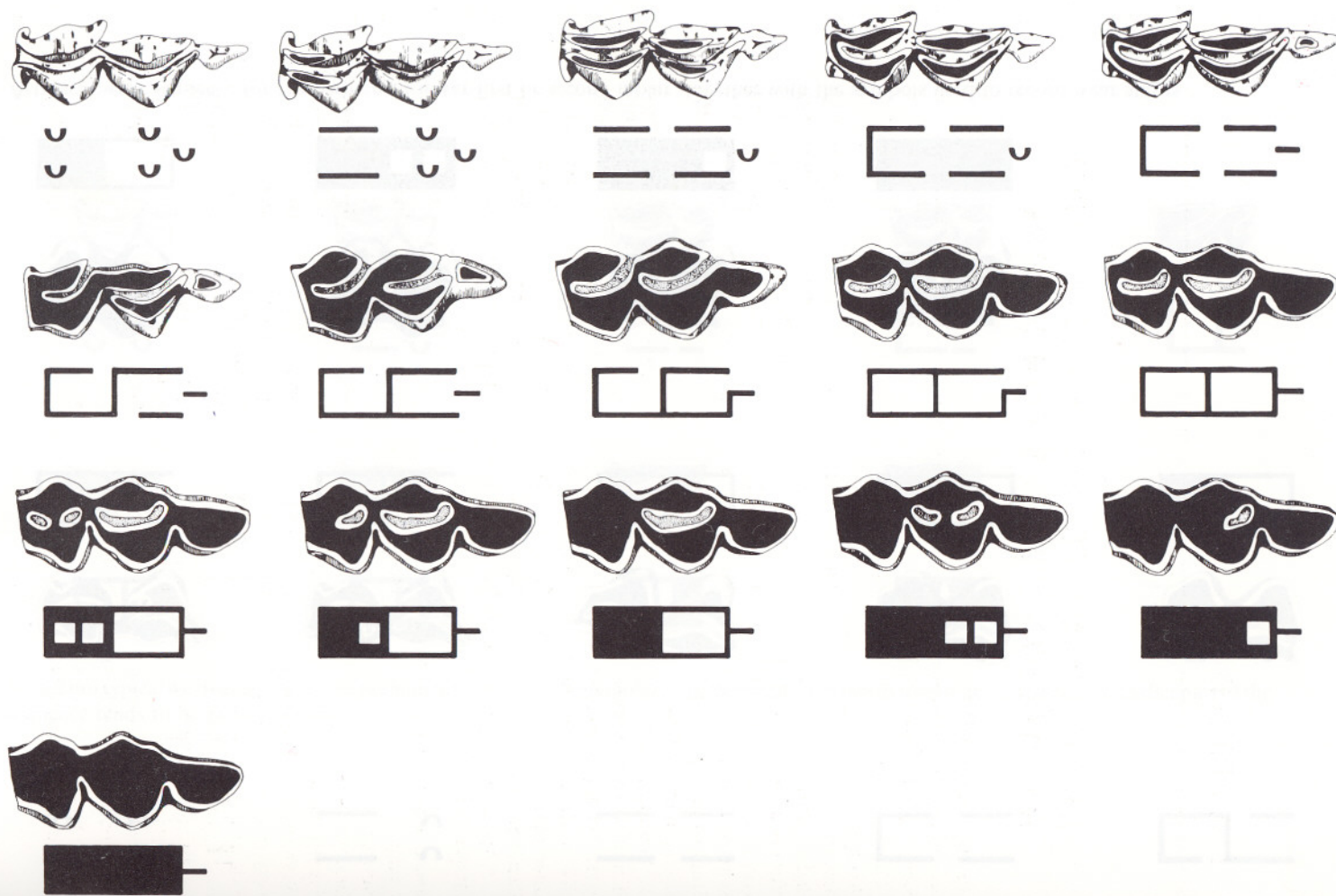
Stages in a typical wear sequence for the deciduous lower fourth premolar, together with the symbols used to record them. The earlier part of the sequence tends to be rather variable.



Stages in a typical wear sequence for the permanent lower fourth premolar, together with the symbols used to record them. The earlier part of the sequence tends to be rather variable.



A typical wear sequence for the permanent lower first or second molar, together with the symbols used to record wear stages.



A typical wear sequence for the permanent lower third molar, with the symbols used to record wear stages. The earlier part of the sequence tends to be rather variable.