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An investigation in the east Durham plateau into the problems of soil survey in relation to agricultural productivity: II Overlays

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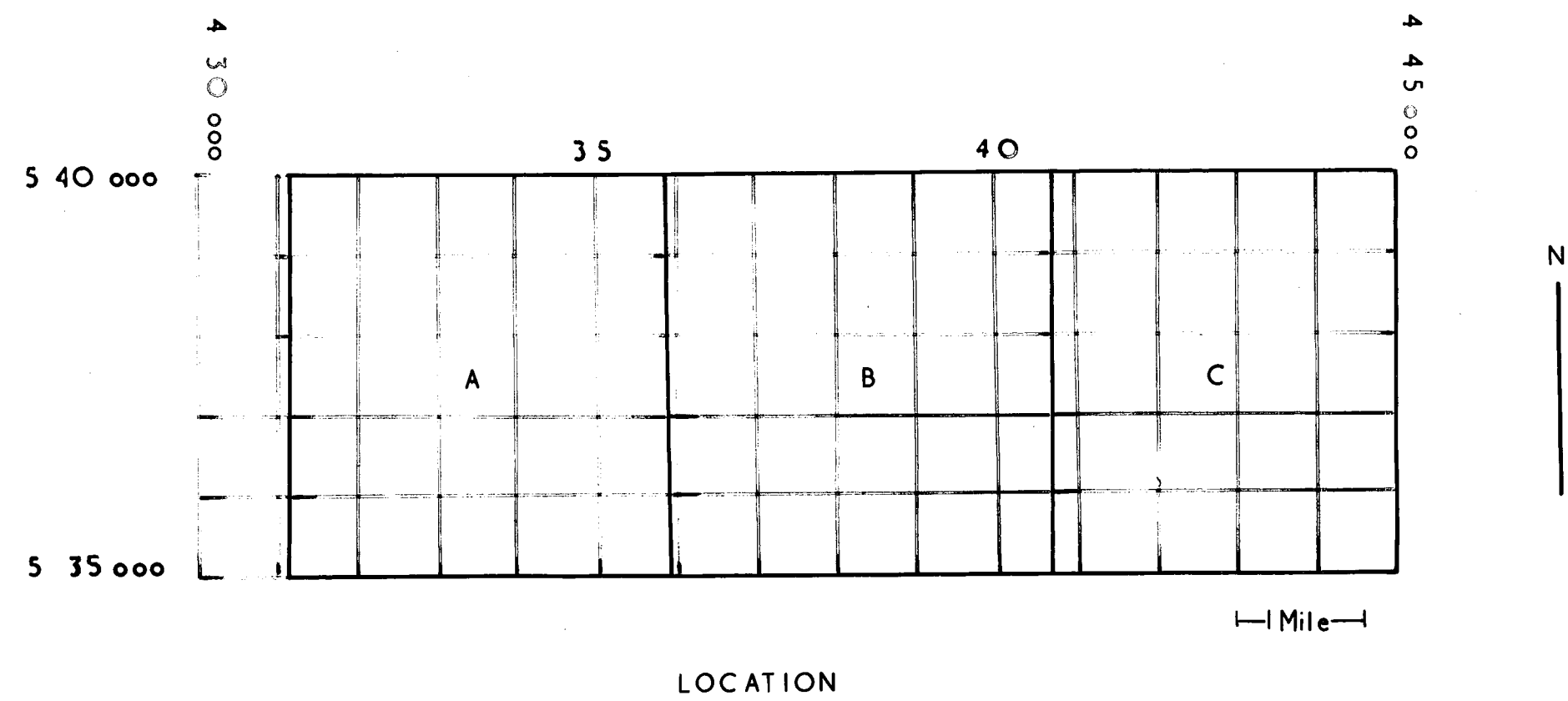
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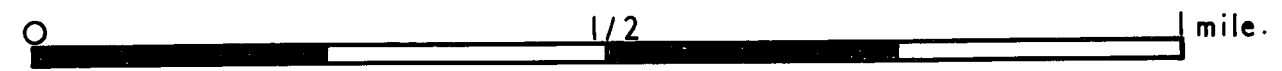
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SHEET I. GENERAL KEY.



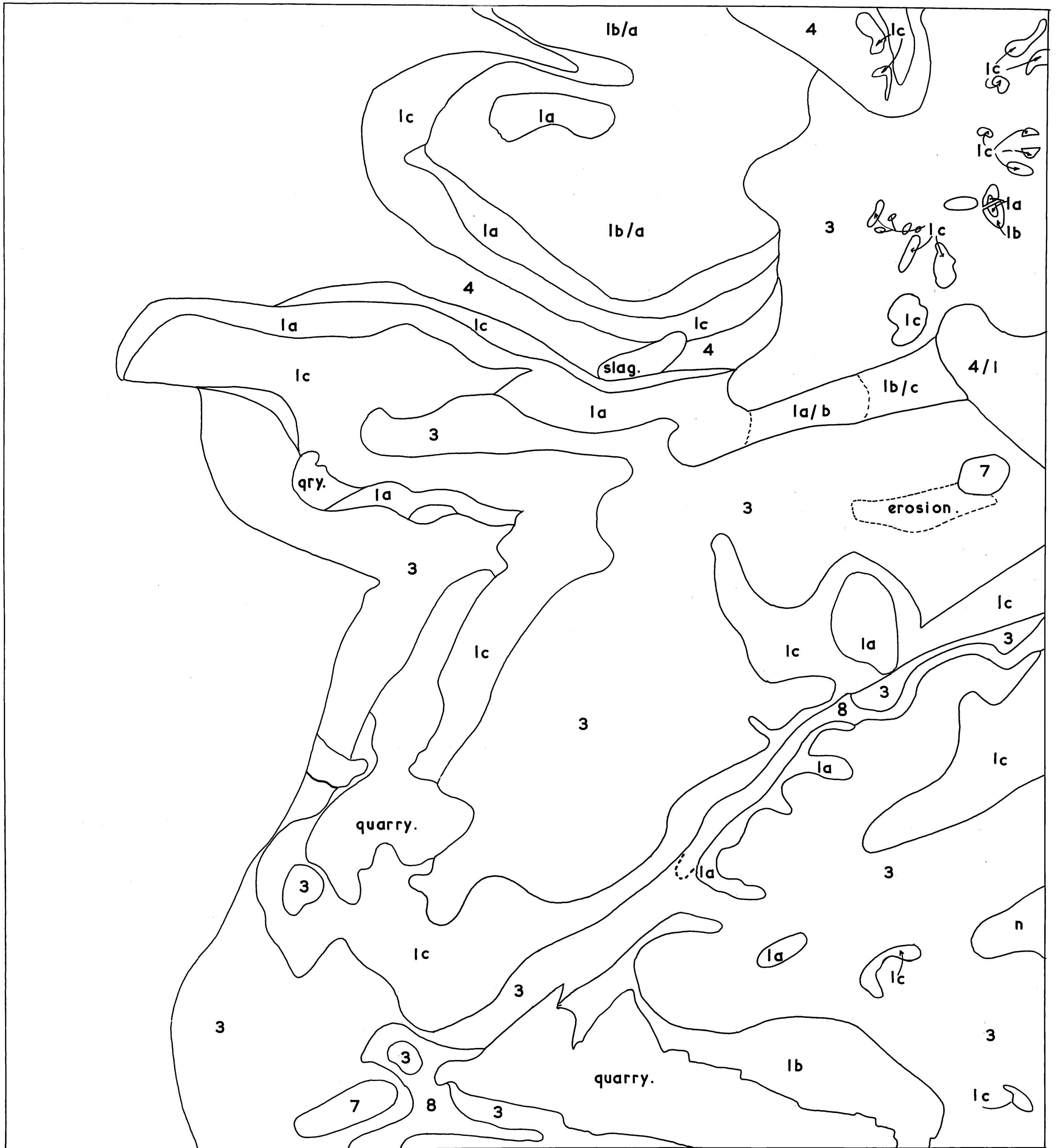
MAPPING SCALE 1 : 10560



STAGE MAPS.

| STAGE. | SYMBOL. | SERIES. | STAGE. | SYMBOL | STAGE. | SYMBOL. |
|--------|-------------|--|--------|--------|--------|---|
| I | 1a 1b 1c | CORNFORTH. | II | | III | B BARLEY. |
| | 2 | MIDDLEHAM. | | | | W WHEAT. |
| | 3 | KELLOE. | | | | O OATS. |
| | 4 | HASWELL. | | | | T ROOTS. |
| | 5 | SHOTTON. | | | | P POTATOES. |
| | 6 | HESLEDEN. | V | | | C CABBAGE AND KALE. |
| | 7 | MAINSFORTH. | | | | T TEMPORARY GRASS. |
| | 8 | CASSOP. | & | | | P PERMANENT PASTURE. |
| | 9 | PRESTON. | VII | | | |
| | 10 | RICKNALL. | | | | |
| VIII | e.g. BARLEY | ZONALLY DOMINANT CEREAL. | | | X | All boundary lines transitional. Broken lines of less importance or assumed boundaries. |
| | | BARLEY OATS | | | | Nutrient deficiency in red Xa |
| | | WHEAT POTATOES | | | | |
| | | | | | | |
| | | | | | | |
| IX | e.g. WHEAT | Cereal providing best returns and worth emphasis in agricultural system. | | | | |

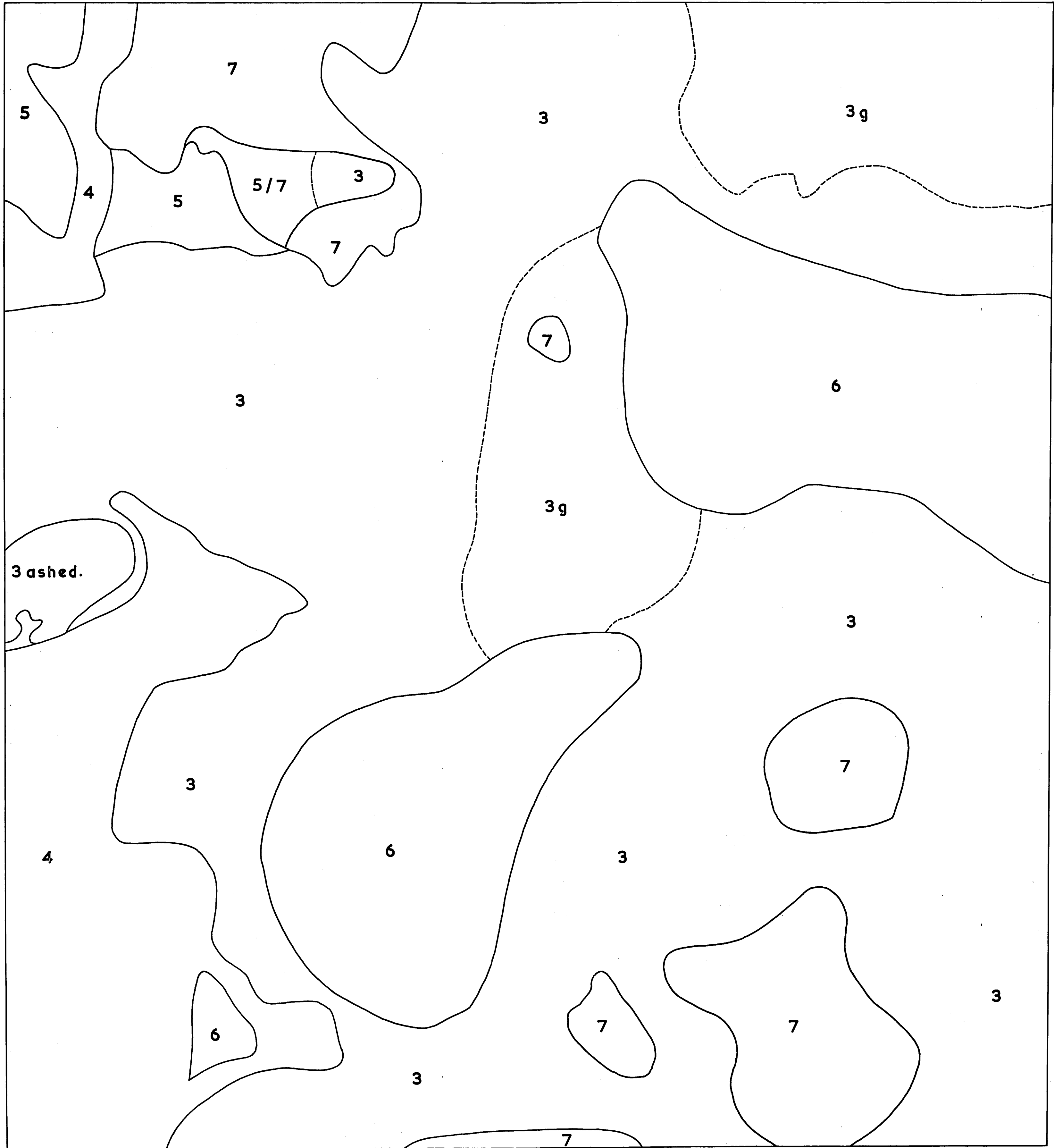
2 STAGE 1A

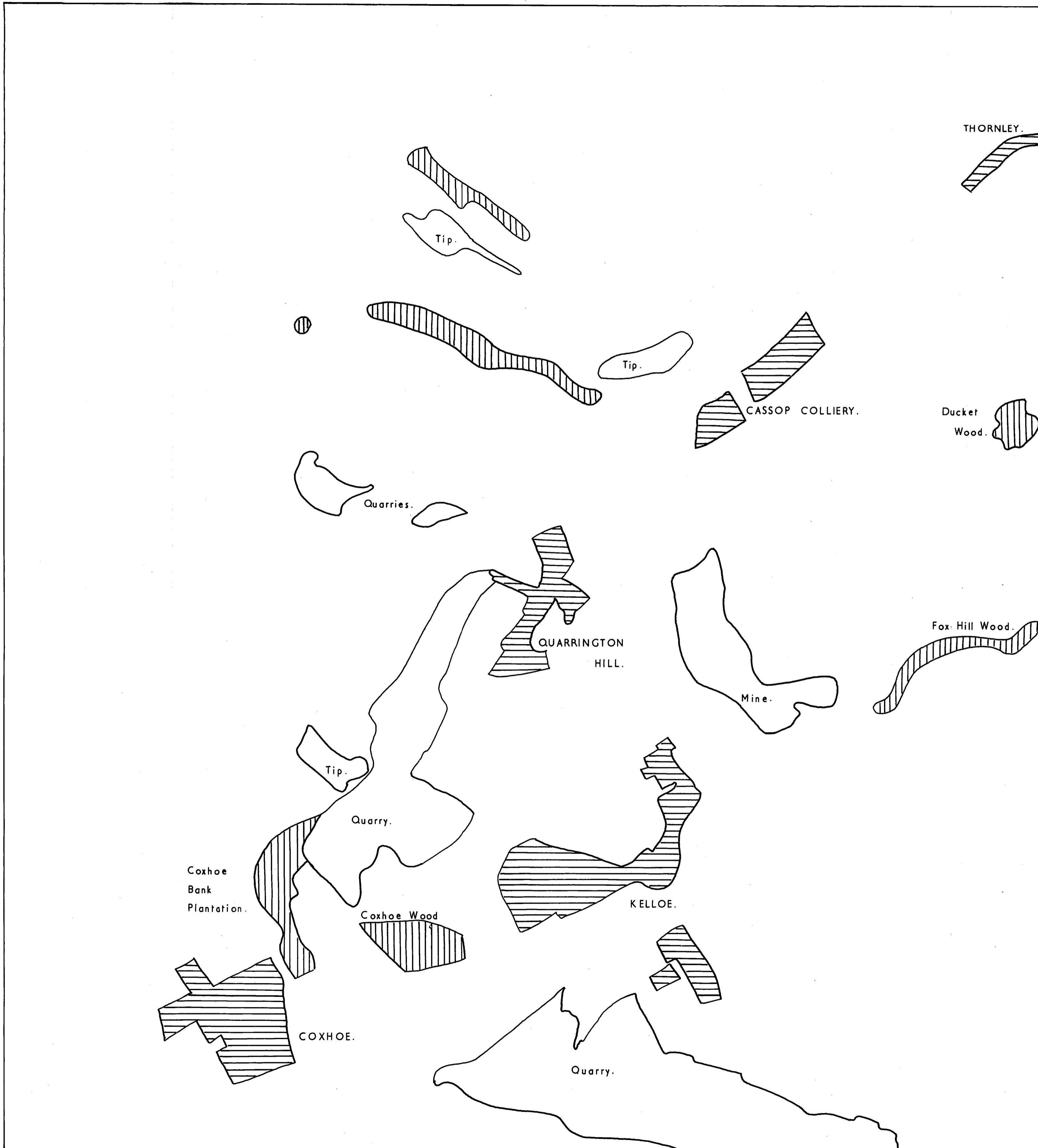


3 STAGE I B



4 STAGE I C

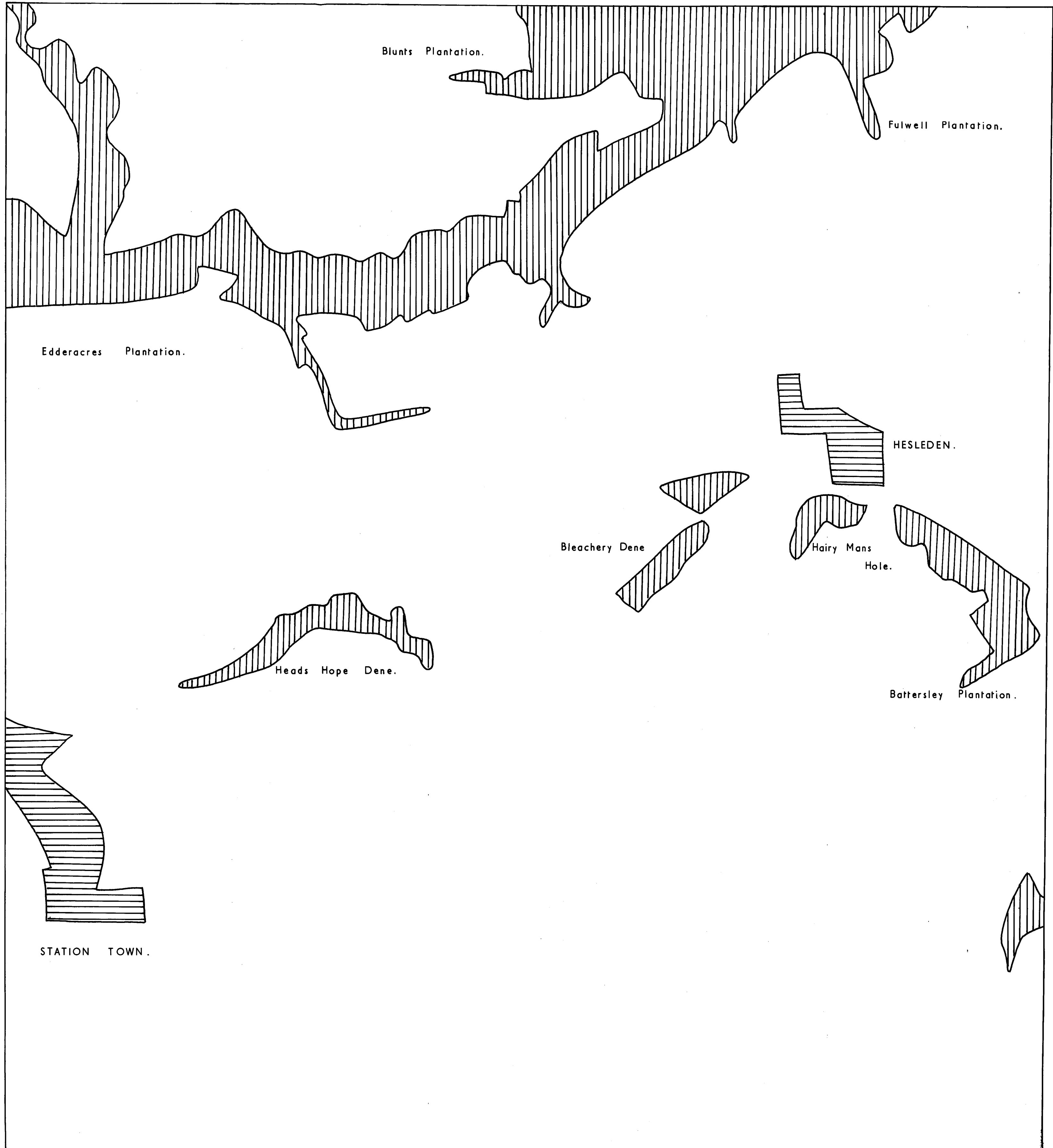




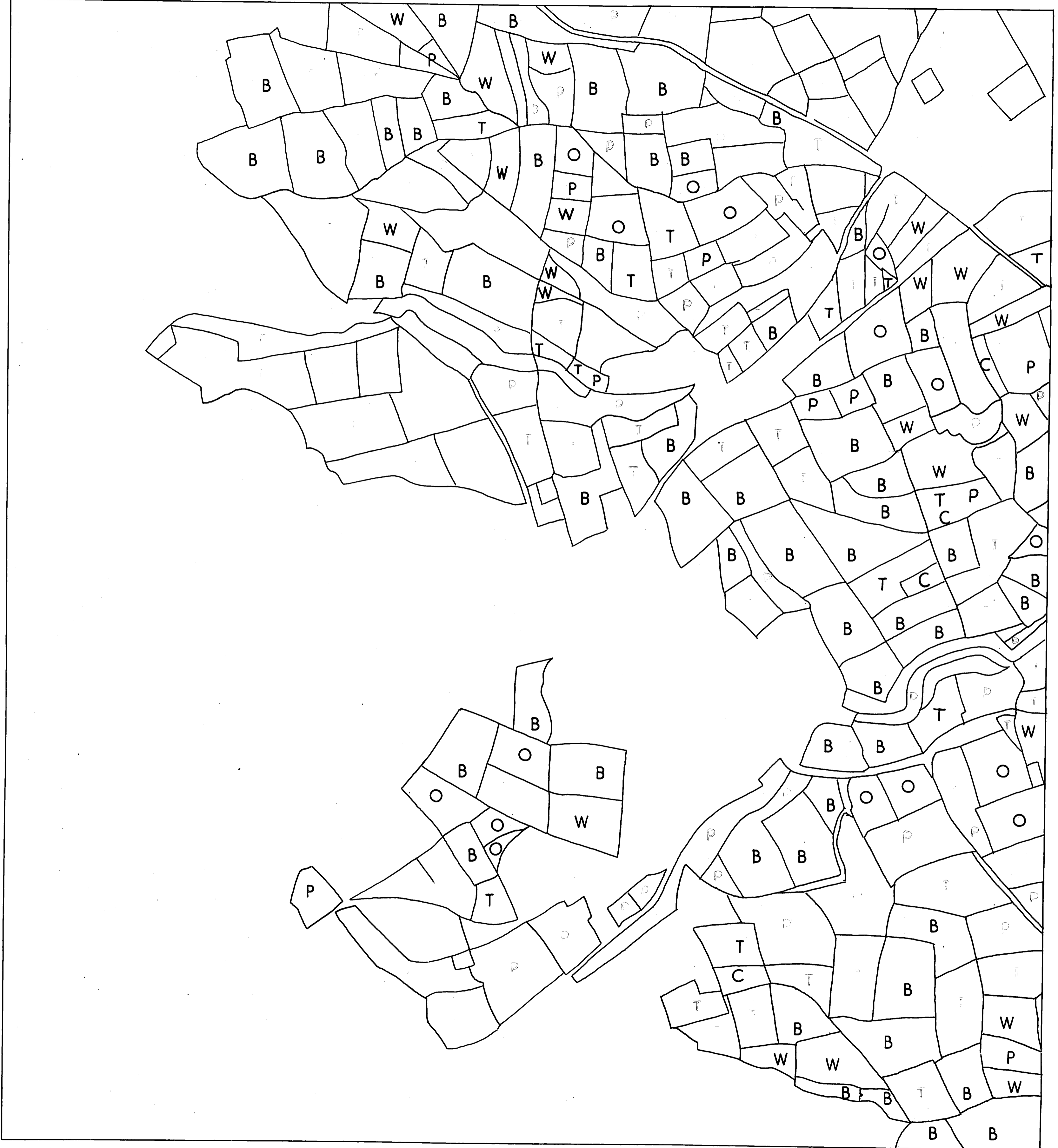
6 STAGE II B



7 STAGE II C



8 STAGE III A

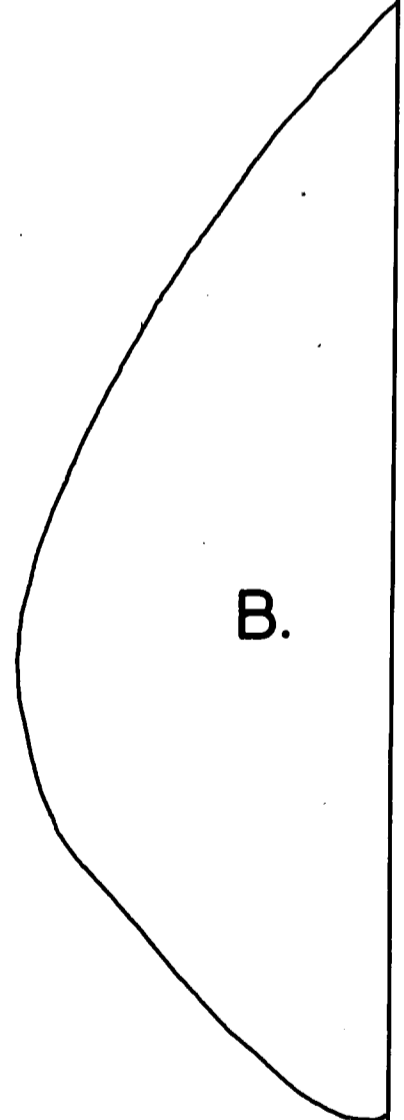
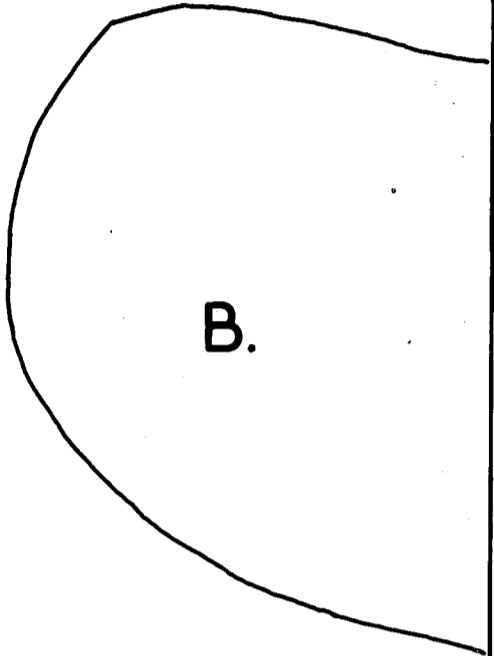
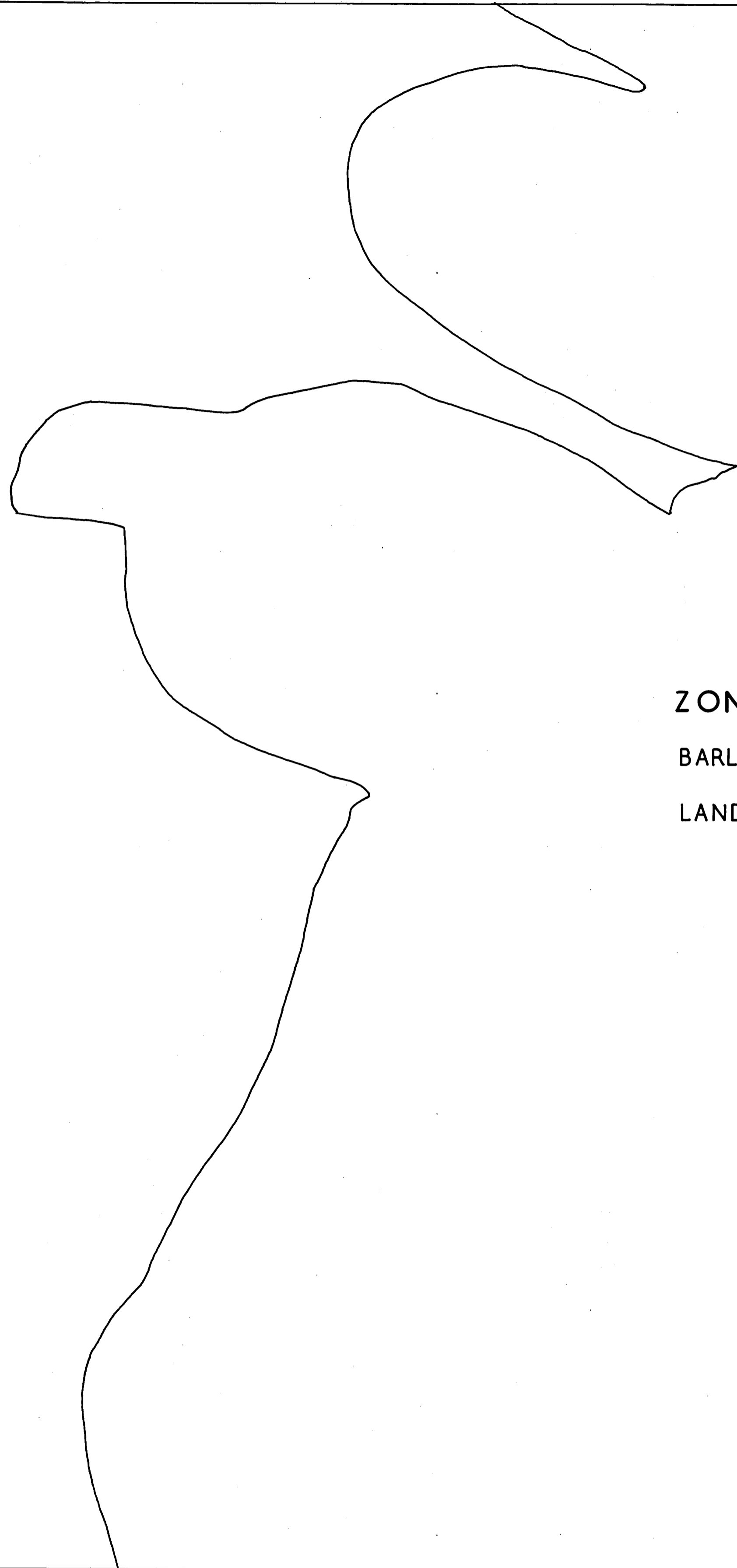


9 STAGE III B



IO STAGE III C





ZONE A.
BARLEY RATIO 2.0
LAND RATING 3.46
GRADE II

ZONE A.

A.

ZONE B.

BARLEY RATIO 1.7

LAND RATING 3.32

GRADE III.

ZONE C.

ZONE A.

13 STAGE IV C & VI C

ZONE B.

ZONE C .

BARLEY RATIO 0.6

LAND RATING 3.75

GRADE II.

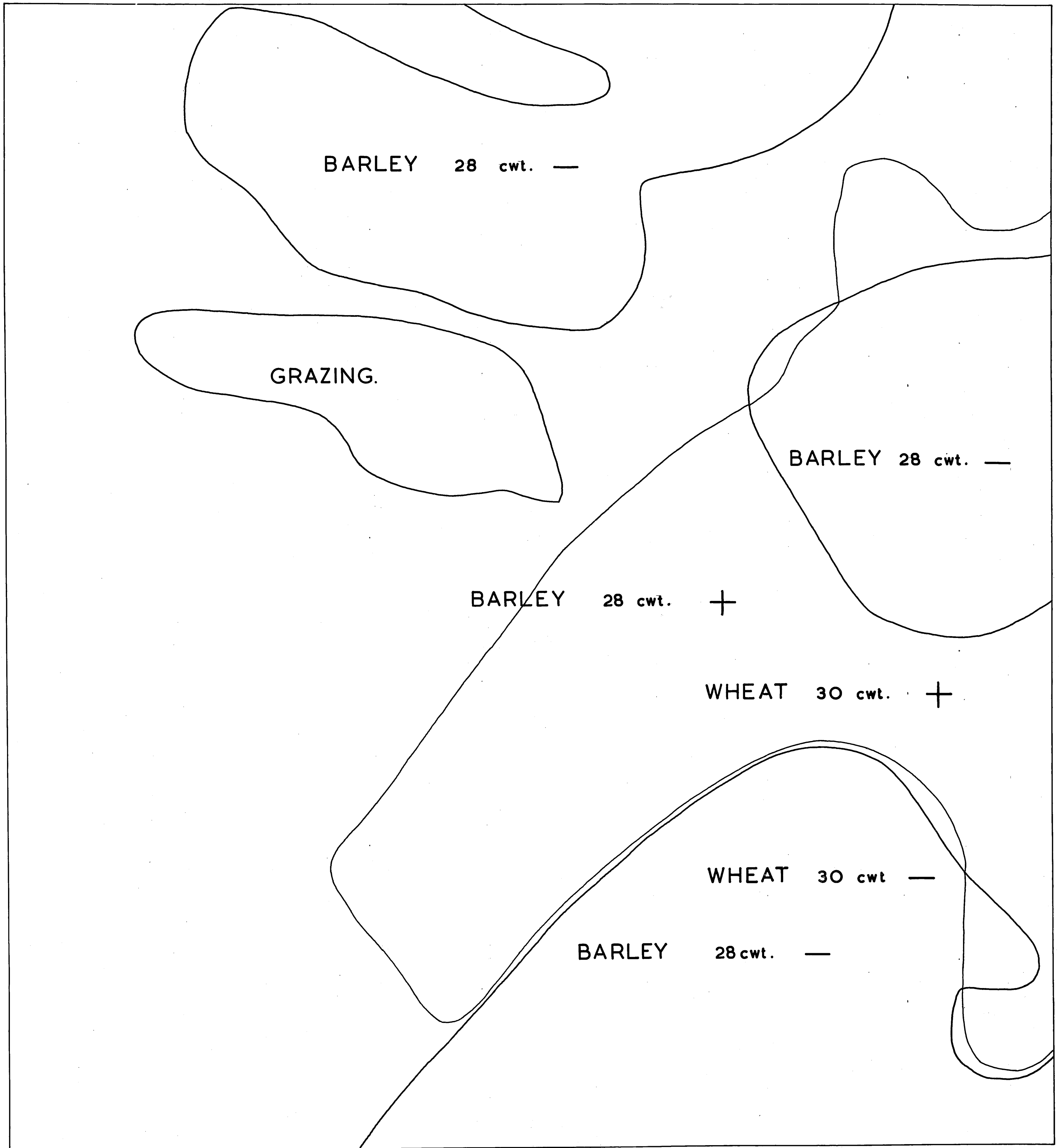
ZONE D .

BARLEY RATIO 0.6

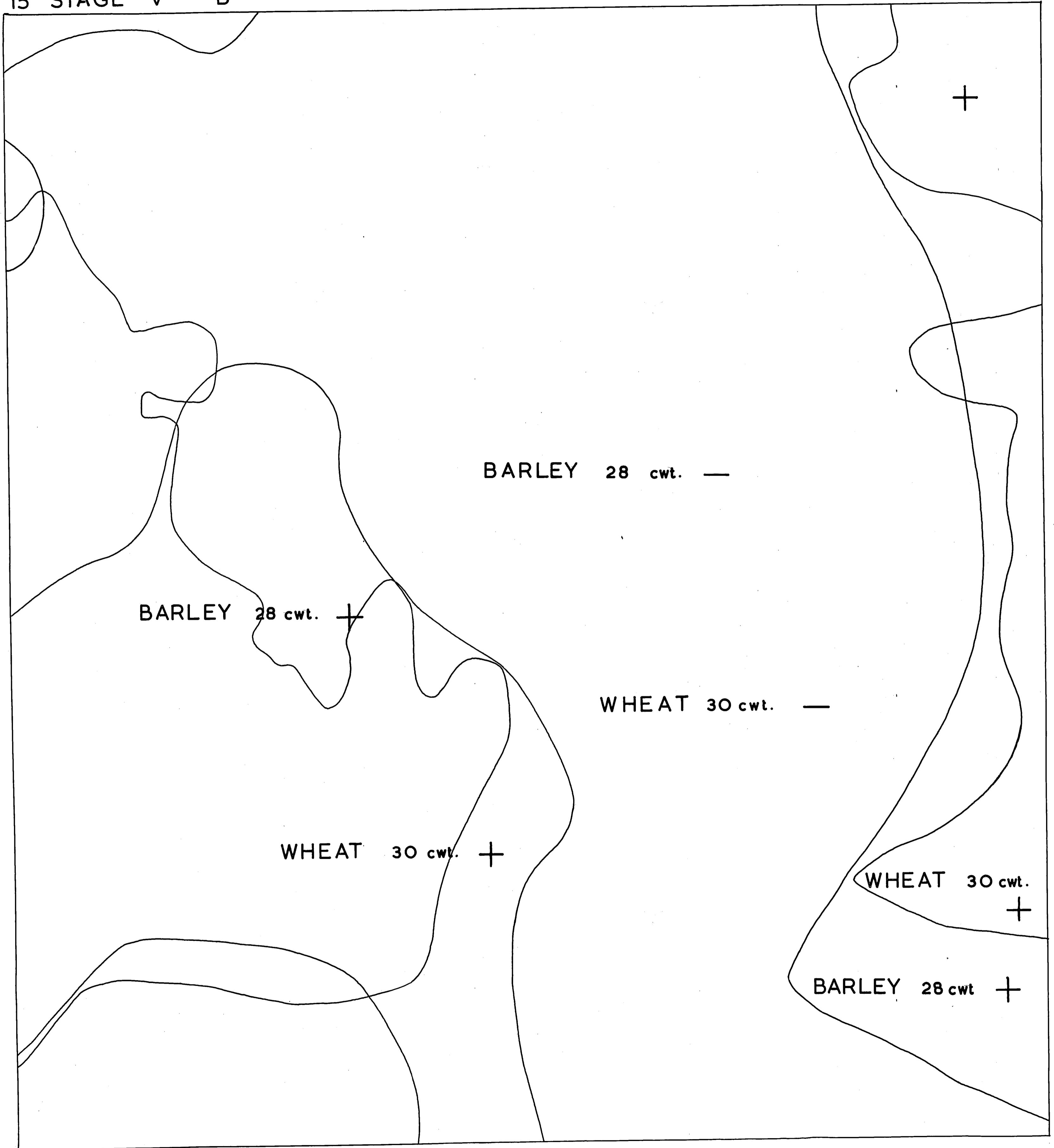
LAND RATING 4.16

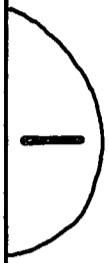
GRADE II.

ZONE B.



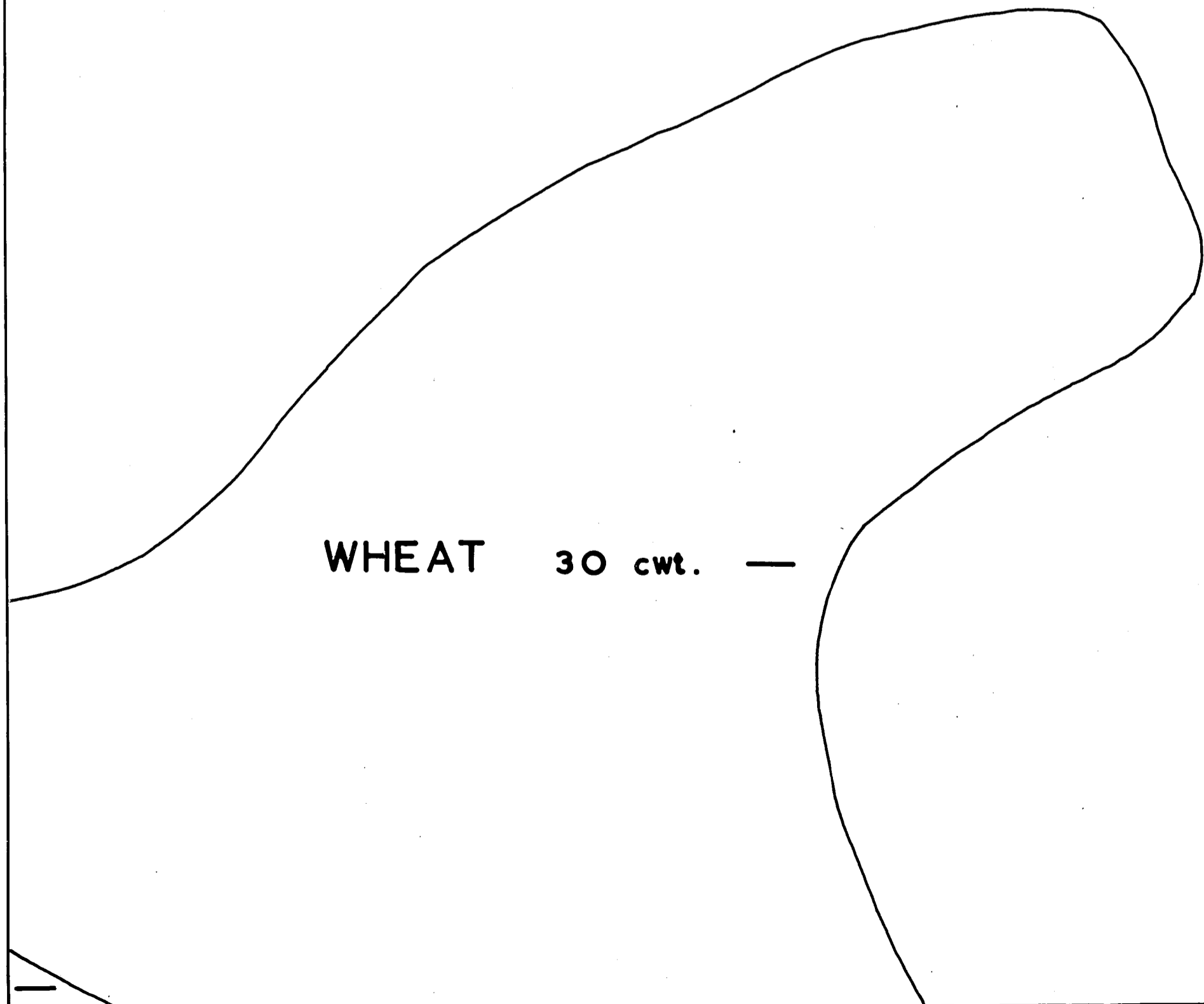
15 STAGE V B



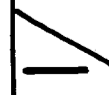


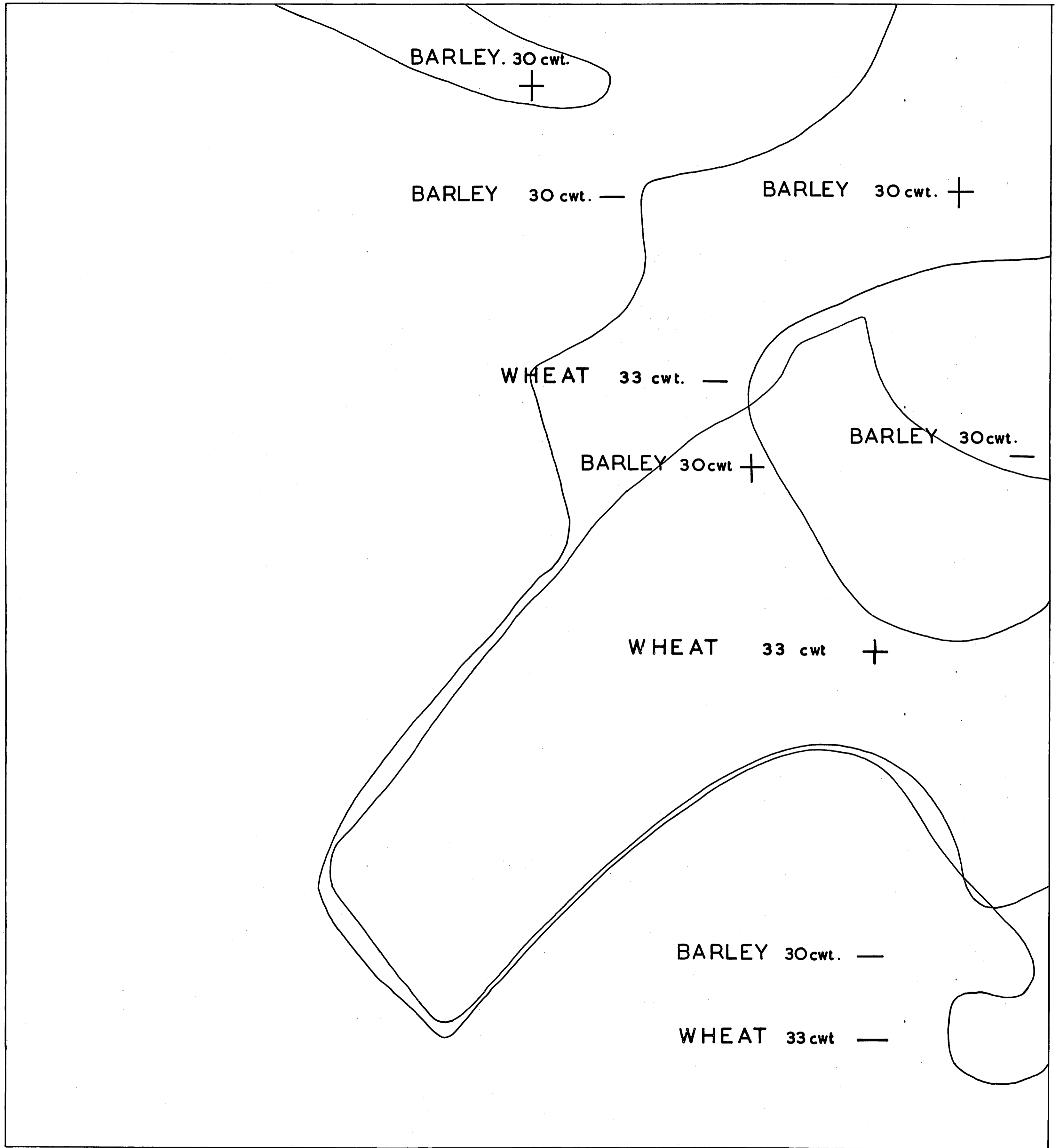
BARLEY 28 cwt. +

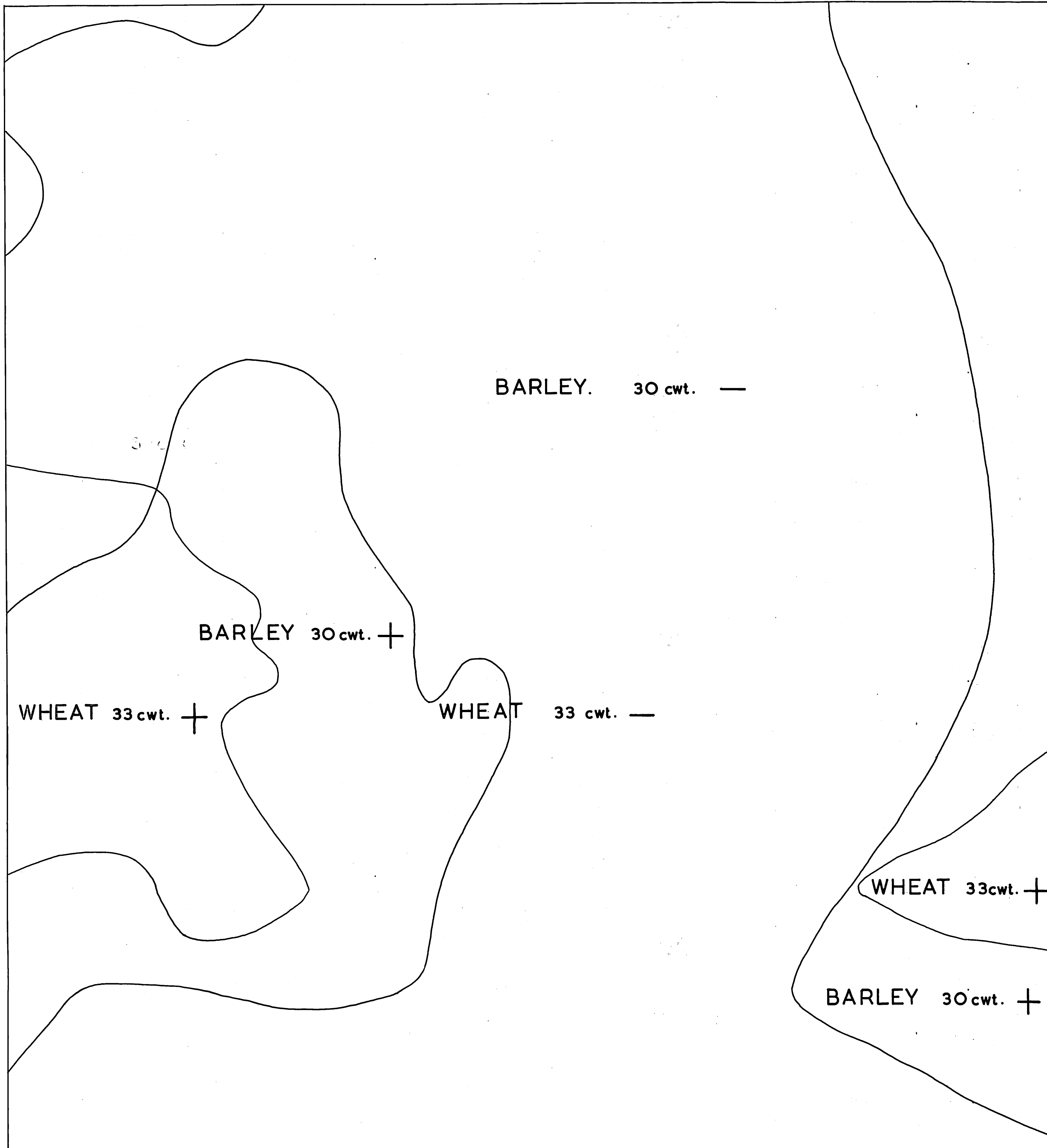
WHEAT 30 cwt. +



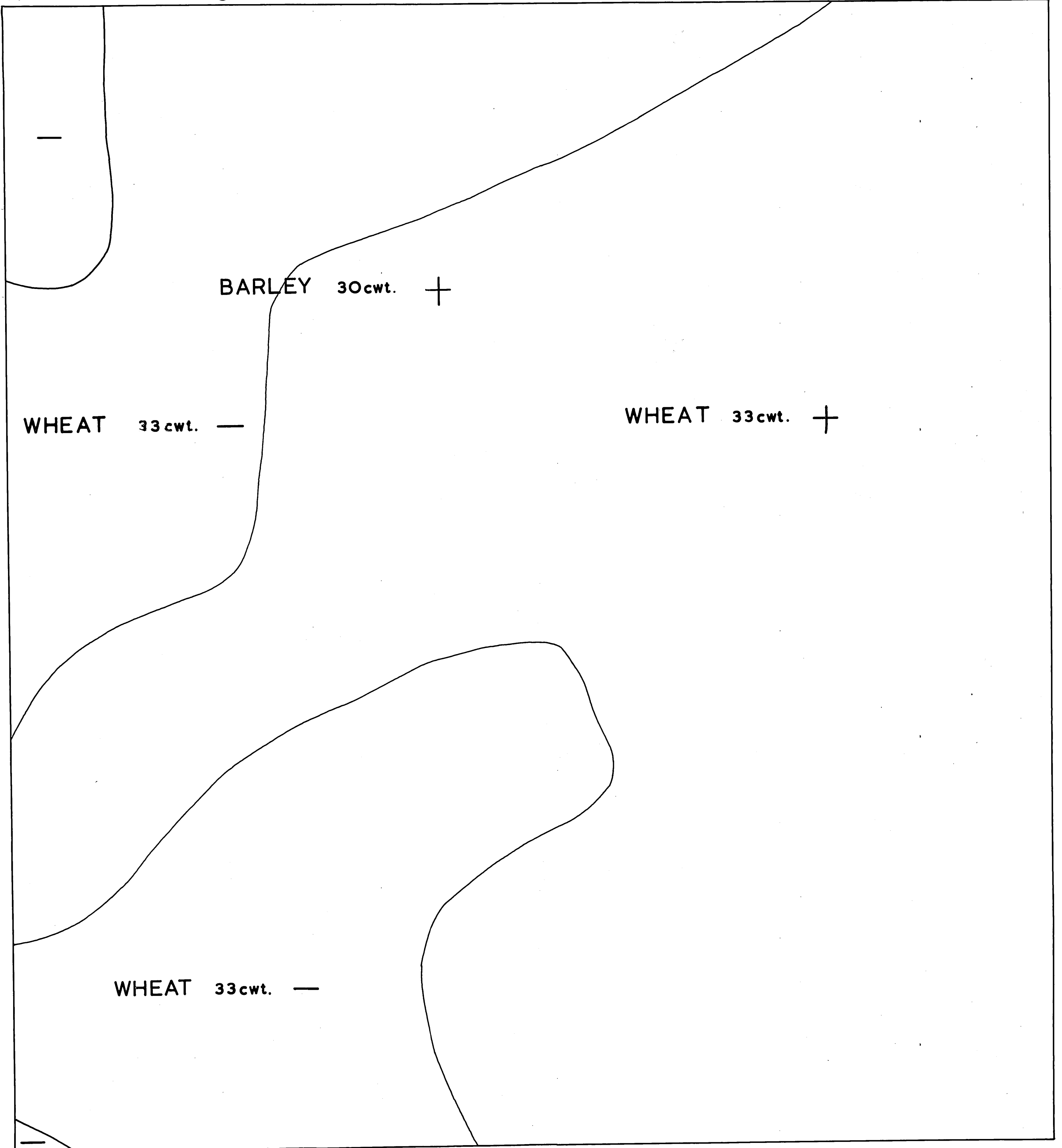
WHEAT 30 cwt. —

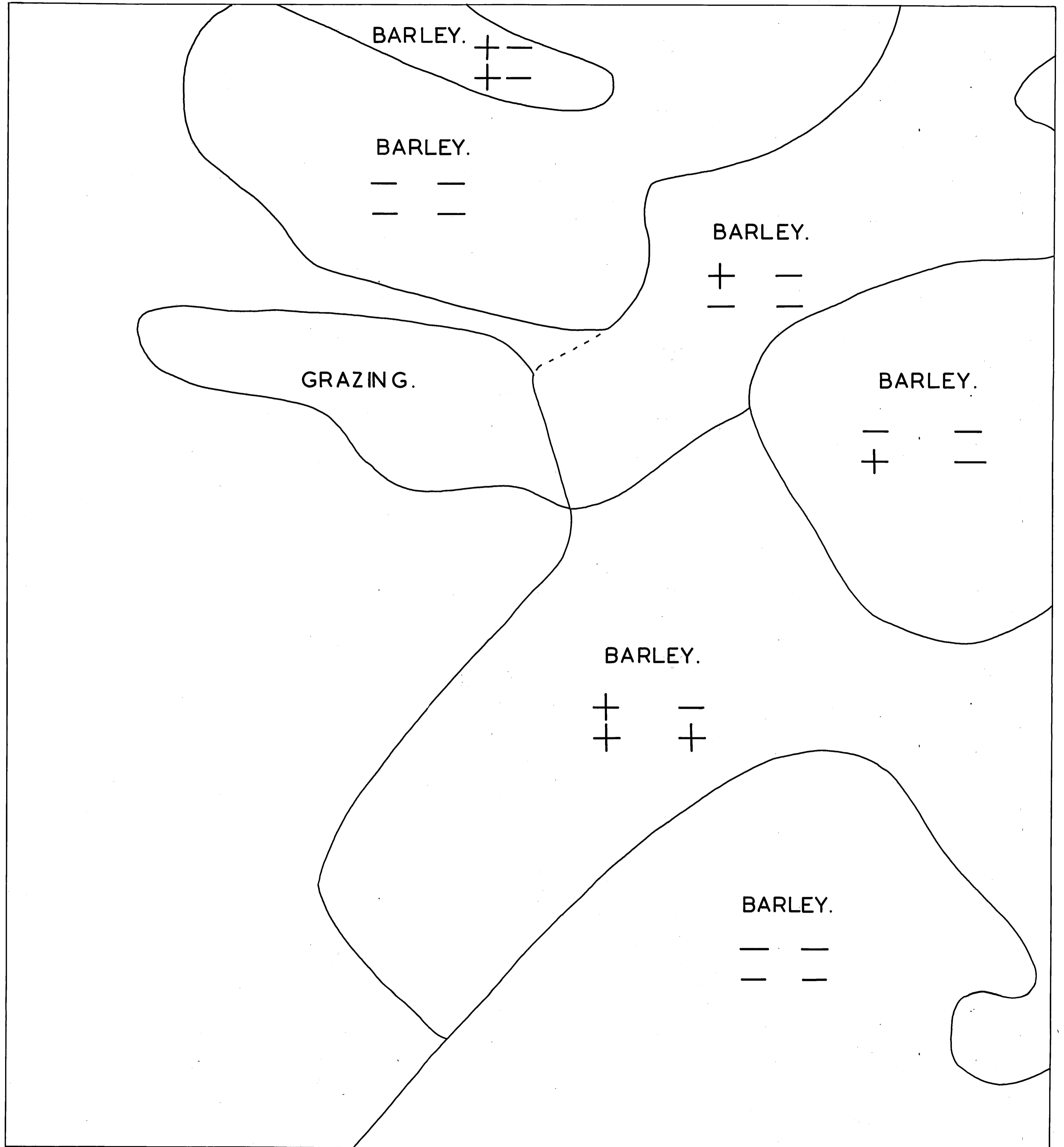


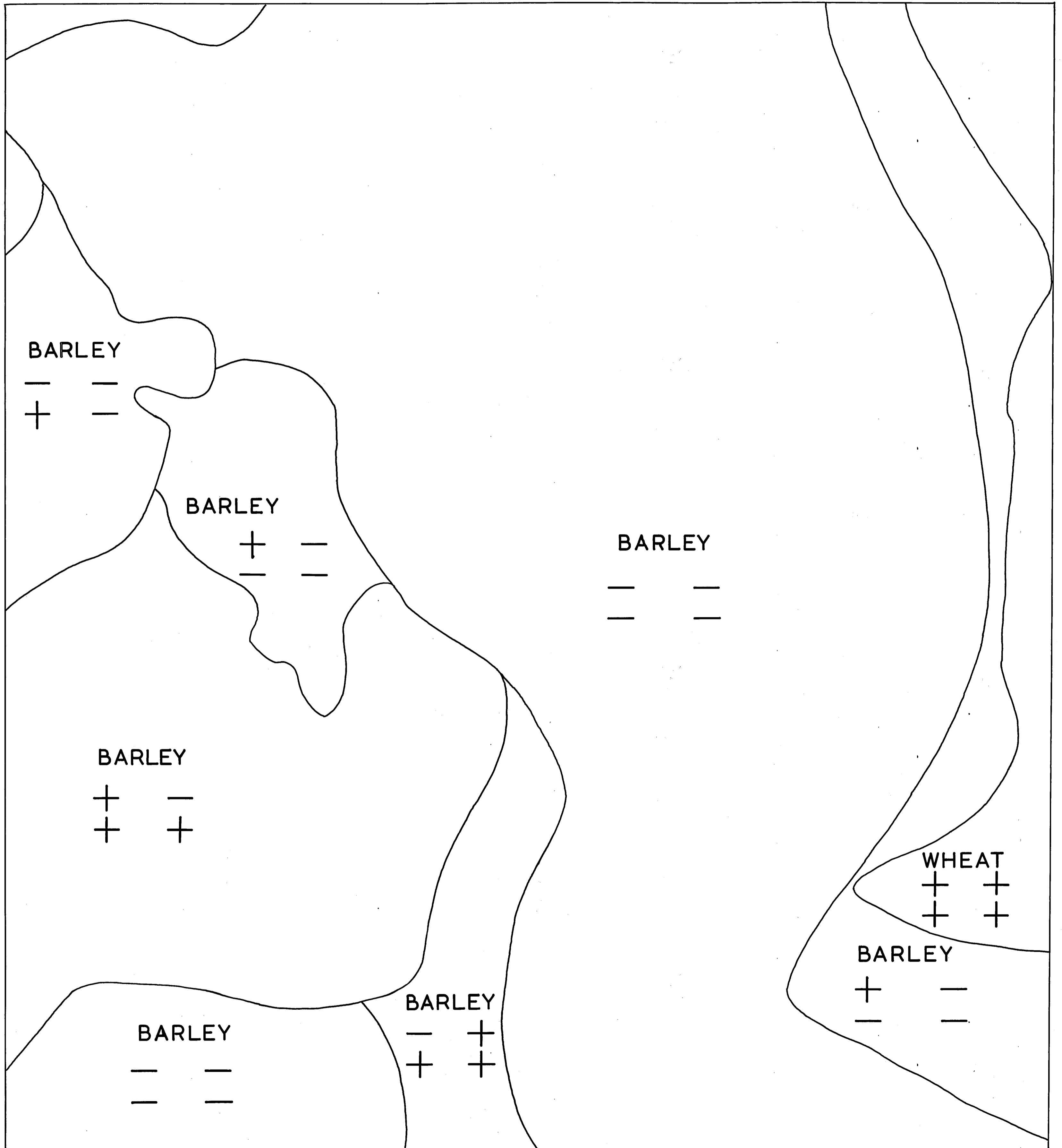




19 STAGE VII C







WHEAT.

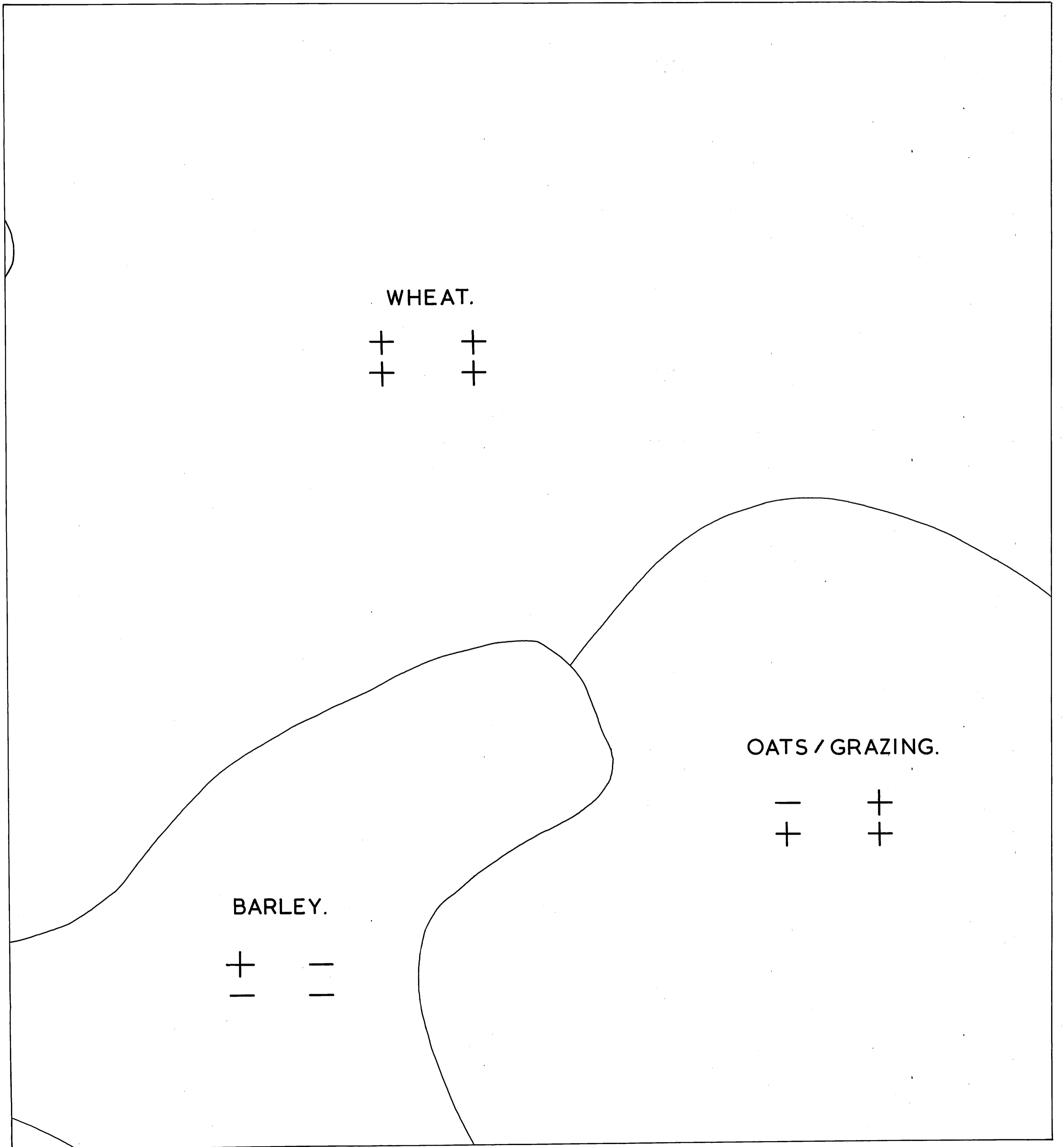
+ +
+ +

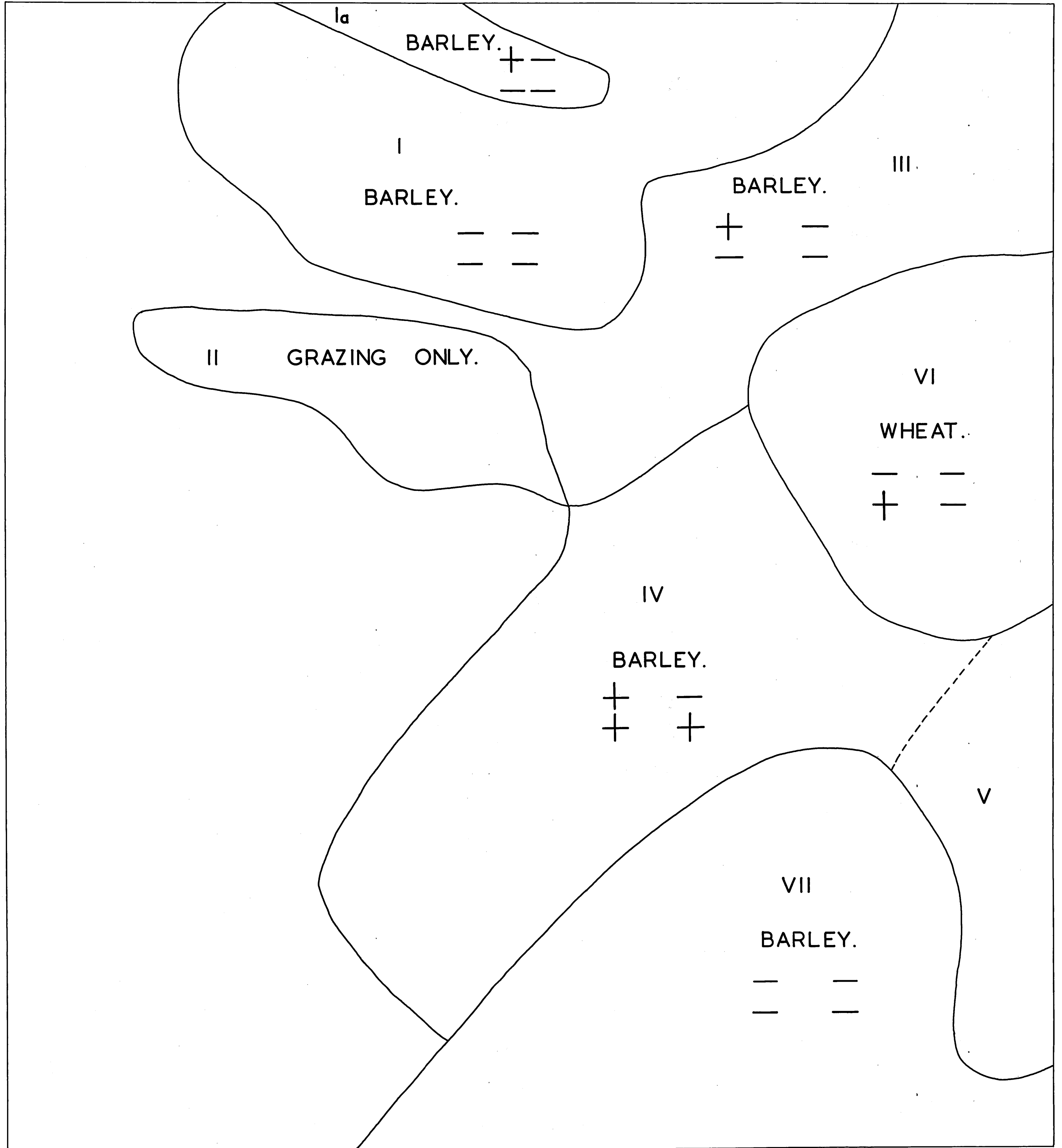
OATS / GRAZING.

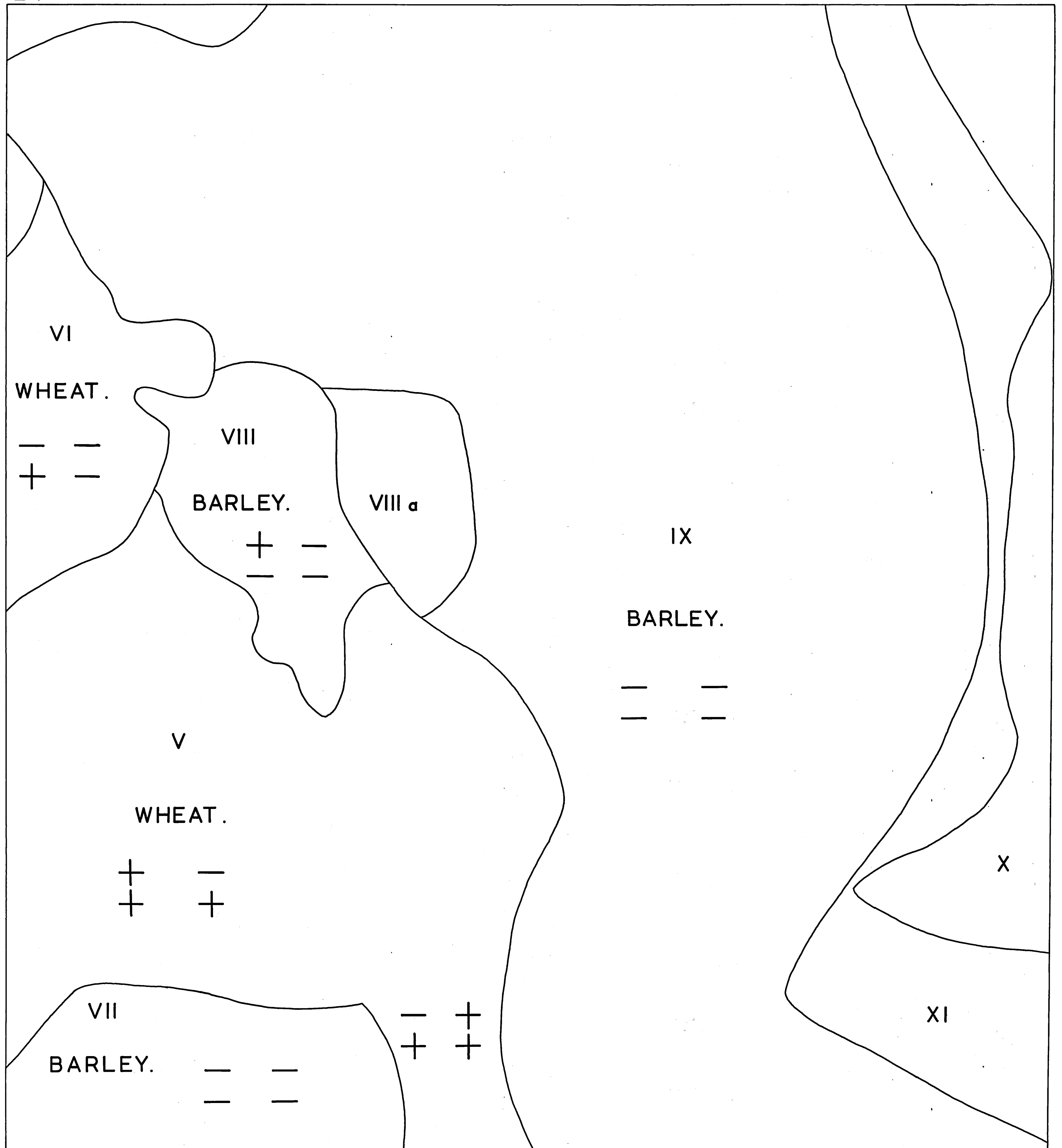
- +
+ +

BARLEY.

+ -
- -







X

WHEAT / OATS.

| | |
|---|---|
| + | + |
| + | + |

XII

OATS / WHEAT.

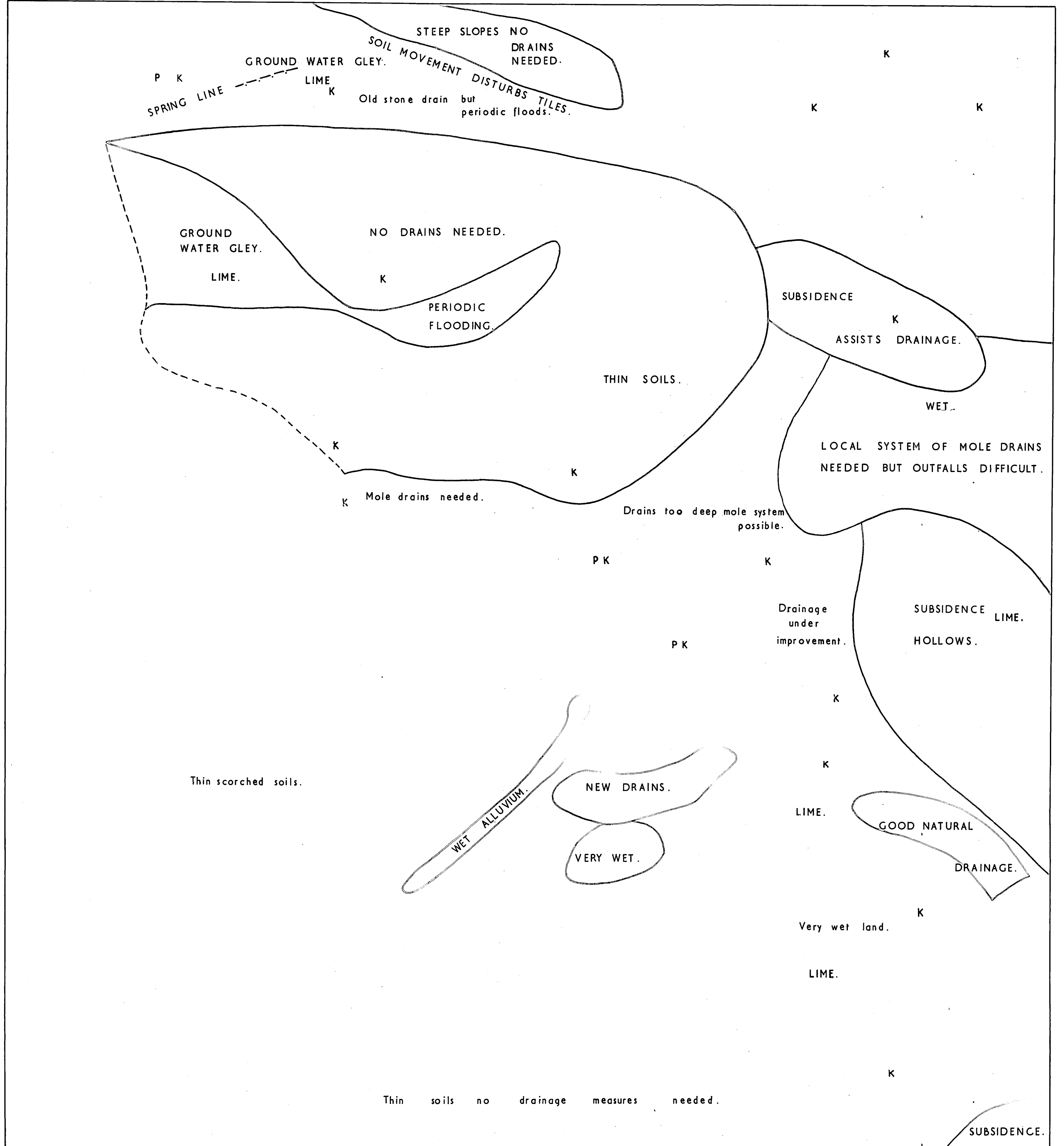
| | |
|---|---|
| - | + |
| + | + |

XI

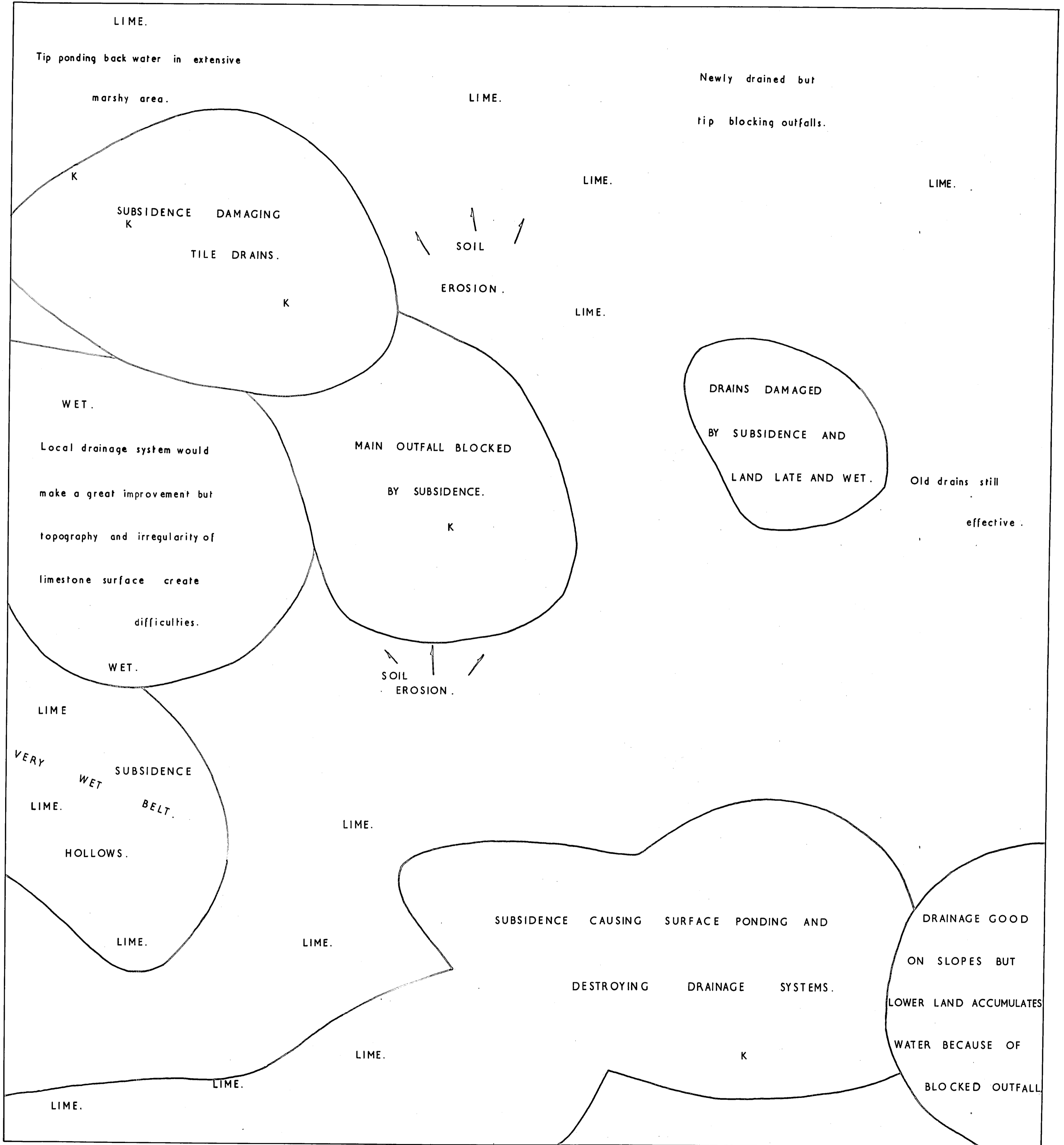
BARLEY.

| | |
|---|---|
| + | - |
| - | - |

26 STAGE X_a A



27 STAGE X_a B



P K

Level sites need new drains

LIME

K

DRAINAGE GENERALLY ADEQUATE TO GOOD

K

K

MIXED DRIFT

with patches of sand and gravel

Surface gley common but bad

drainage only in hollows or

close to streams.

K

Drainage good

on

LIME

adequate slopes

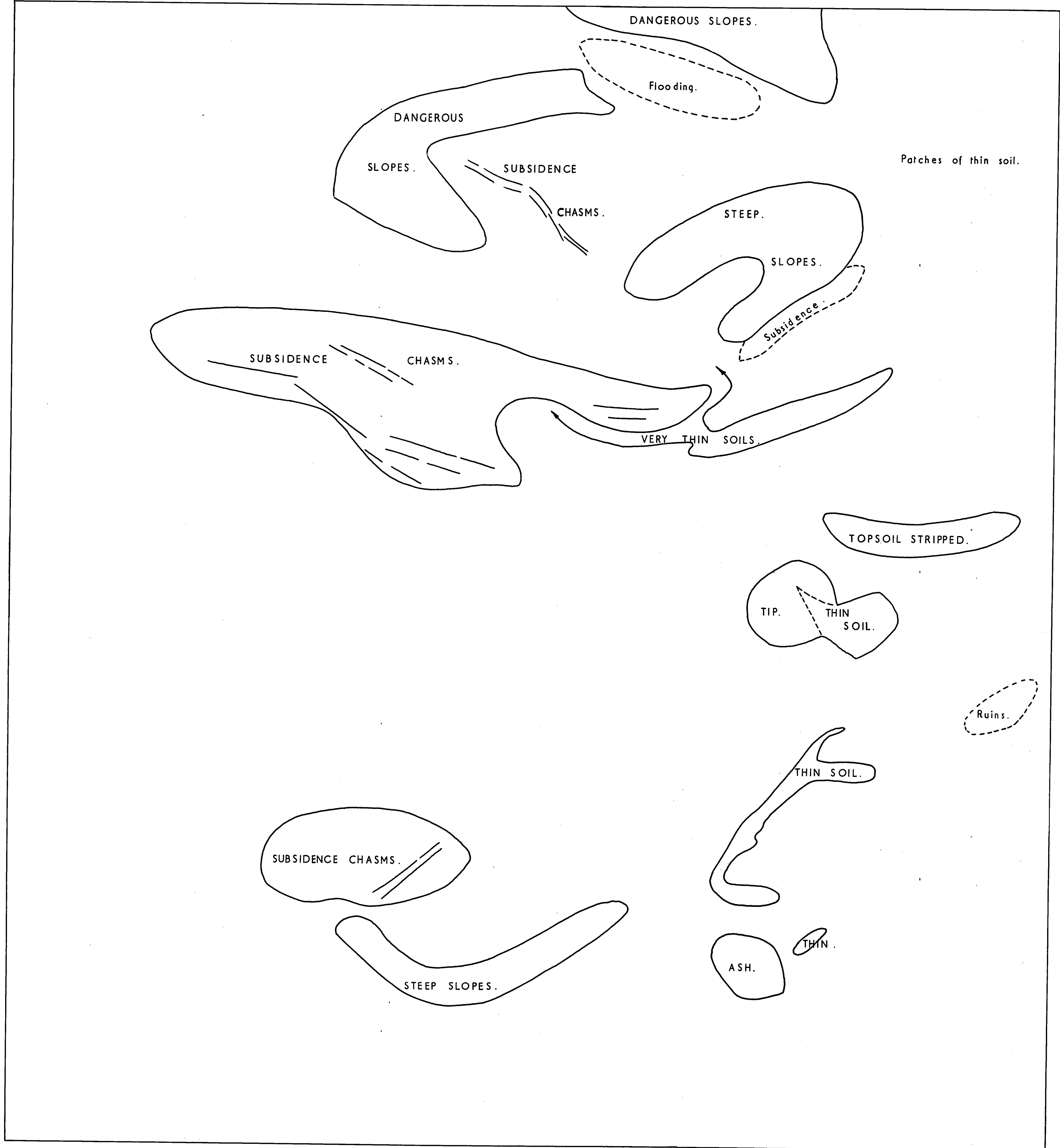
but

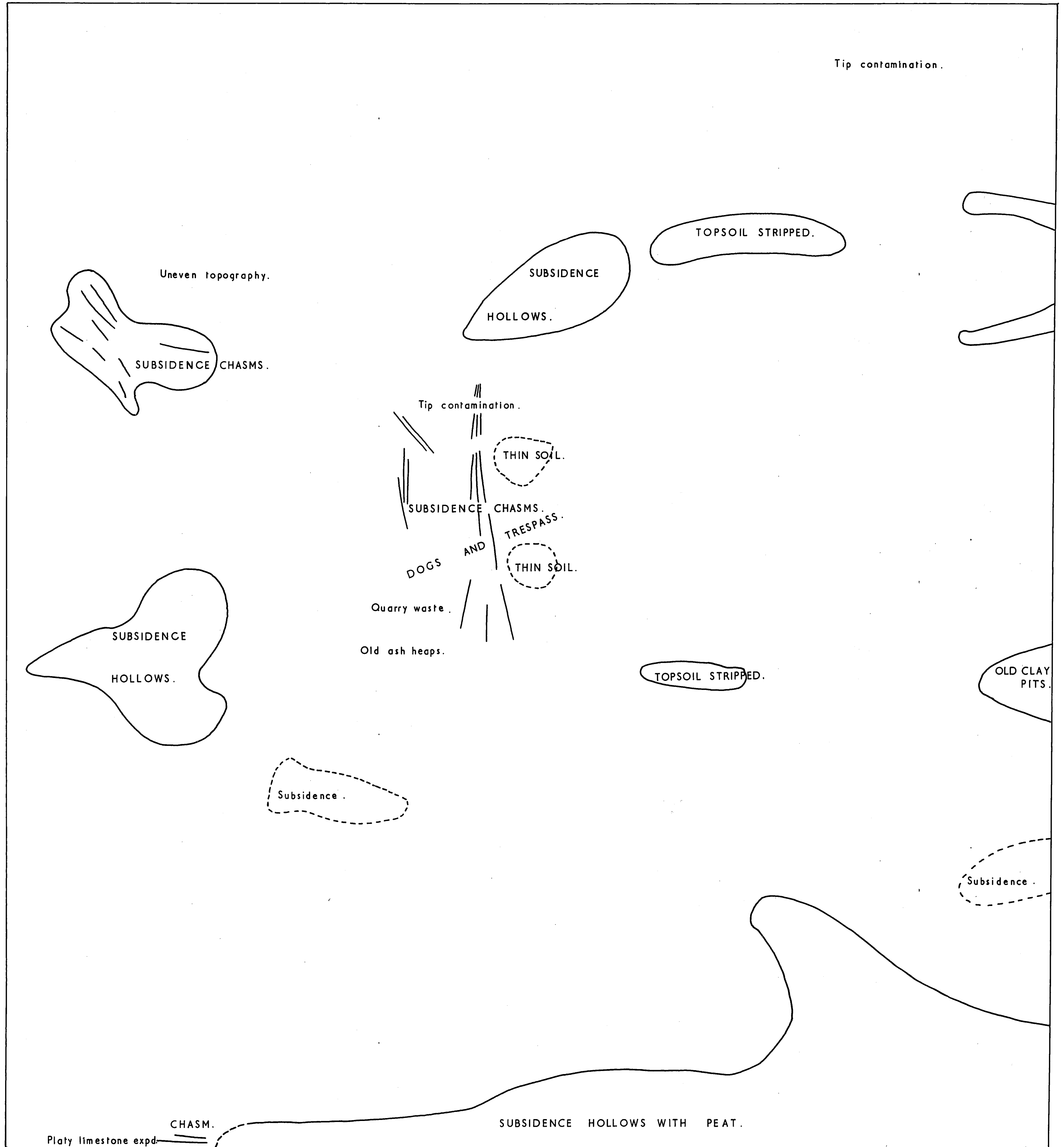
lower land wet.

Blocked outfalls.

K

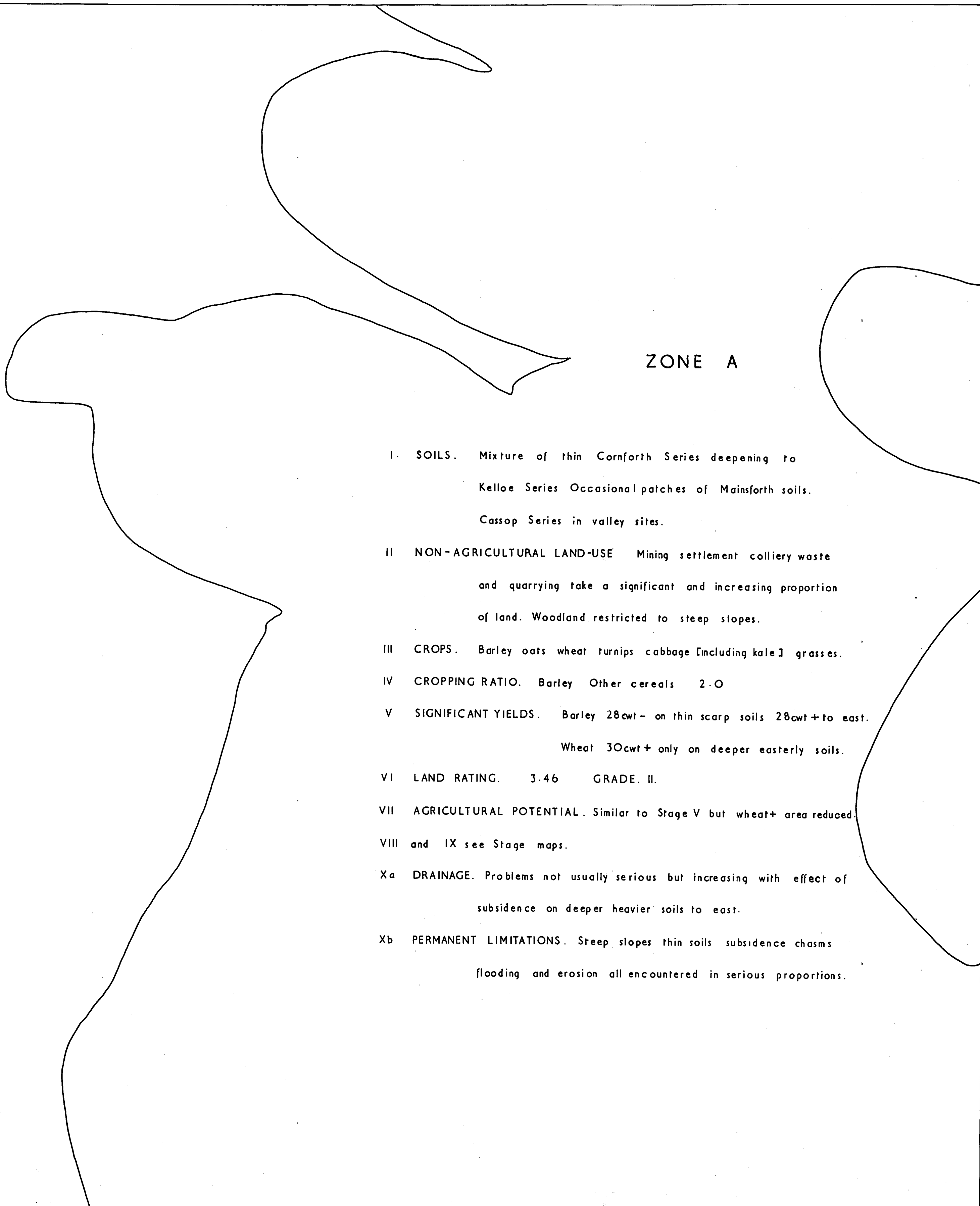
HILLS ADEQUATELY CLEARED BUT LOWER LAND NEEDS DRAINING.





31 STAGE Xb C





ZONE A

- I. SOILS. Mixture of thin Cornforth Series deepening to Kelloe Series Occasional patches of Mainsforth soils. Cassop Series in valley sites.
- II NON-AGRICULTURAL LAND-USE Mining settlement colliery waste and quarrying take a significant and increasing proportion of land. Woodland restricted to steep slopes.
- III CROPS. Barley oats wheat turnips cabbage [including kale] grasses.
- IV CROPPING RATIO. Barley Other cereals 2.0
- V SIGNIFICANT YIELDS. Barley 28cwt- on thin scarp soils 28cwt+ to east. Wheat 30cwt+ only on deeper easterly soils.
- VI LAND RATING. 3.46 GRADE. II.
- VII AGRICULTURAL POTENTIAL. Similar to Stage V but wheat+ area reduced.
- VIII and IX see Stage maps.
- Xa DRAINAGE. Problems not usually serious but increasing with effect of subsidence on deeper heavier soils to east.
- Xb PERMANENT LIMITATIONS. Steep slopes thin soils subsidence chasms flooding and erosion all encountered in serious proportions.

ZONE B

- I SOILS. Mainly ill-drained Haswell Series with some Kelloe Cornforth Mainsforth and Cassop soils.
- II NON-AGRICULTURAL LAND USE Mining settlement and spoil extensive. Large areas of plantation wood.
- III CROPS. Barley wheat oats roots potatoes cabbage.
- IV CROPPING RATIO. Barley : Other cereals 1.7
- V SIGNIFICANT YIELDS. Barley 28cwt. - wheat 30cwt. -
- VI LAND RATING. 3-32 GRADE III.
- VII AGRICULTURAL POTENTIAL. Barley 30cwt. - wheat 33cwt. -
- VIII & IX See Stage maps.

Xa DRAINAGE Largely ill drained and tiles damaged by subsidence.
Moles suggested but outfalls blocked and ponding frequent.

Xb PERMANENT LIMITATIONS. Subsidence chasms around Old Wingate.
Hollows elsewhere Trespass and dogs near O. Wingate quarries.
Erosion and tip contamination encountered.

ZONE C

- I SOILS. Largely Kelloe Series with Hesleden Mainsforth and a small area of Haswell soils.
- II NON-AGRICULTURAL LAND USE. Denes extensive and wooded but settlement and other woodland limited except for extensions to Peterlee in the north
- III CROPS. Barley wheat oats turnips potatoes cabbage.
- IV CROP RATIO. Barley : Other cereals 0.6
- V SIGNIFICANT YIELDS. Barley entirely 28 cwt+ wheat largely 30 cwt +.
- VI LAND RATING. 3.75 GRADE. II.
- VII AGRICULTURAL POTENTIAL. Barley almost all 30 cwt+ wheat divided but largely 33 cwt+.
- VIII & IX See Stage maps.
- Xa DRAINAGE. Generally adequate only bad in depressions.
- Xb PERMANENT LIMITATIONS. Extensive denes with steep slopes in N. and E. hummocky in S.