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## SOIL SURVEYING IN NORFOLK AND SUFFOLK

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### # INTRODUCTION

*This paper describes the soils and soil patterns found in three parts of East Anglia: the Brecklands in the centre, the Beccles area in the east, and the Cromer Ridge in the north-east.*

*The present policy of the Soil Survey of England and Wales is detailed mapping of selected Ordnance Survey 1:25,000 sheets. The selected sheets for Norfolk and Suffolk cover (Harwich/Felixstowe, Bury St. Edmunds, Beccles TM49, Lowestoft, Horning/Acle TG31, Breckland/Thetford, King's Lynn, Fakenham, Cromer TG13, TG14, and Hunstanton areas). In this programme, started in 1967, the Beccles sheet TM49 and the Cromer Ridge sheets TG13 and TG14 have been completed, and the Horning sheet TG31 is being surveyed. Prior to this programme, from 1947 to 1966, the Survey used mainly third edition O.S. 1" base maps, and mapped areas of 216 square miles selected for the agricultural importance of the soils. 80 square miles in Breckland were surveyed between 1960 and 1963 as a special project for the Forestry Commission and Nature Conservancy. The selected 1:25,000 sheets in the present programme, each covering about 38 square miles, will serve as the basis for 1:250,000 maps of counties, the 1:25,000 sheets being chosen as representing typical landscapes. The ¼ inch maps will be largely produced by extrapolating major soil boundaries with the aid of relief maps or stereoscopic aerial photographs.*

*Each area has a distinct group of soils arranged in characteristic patterns and these will be used to illustrate the two aims of soil survey, namely classification and mapping.*

# No formal abstract available for this paper.

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**“IRON MINERAL GEODES” IN NORFOLK AND SUFFOLK**

*H.E.P. Spencer*

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**# SUMMARY**

*In nearly half a century of observations in Suffolk sands and gravels, inevitably some familiarity is gained with the varieties of ferruginous concretions, etc., which occur with some frequency in most pervious deposits such as sand and gravel, including the Red Crag.*

*An important fact has to be taken into consideration, which is drawn from archaeological observations, i.e. iron nails from fourth century Roman villa sites and the clench nails from ship burials of the dark ages, provide a clue to the hollow found in great proportion of the geodes. In these, it has been found that the original iron, during the process of oxidation, has migrated outward, concreting the surrounding matrix of sand and gravel, leaving a hollow mould in the size and form of the object.*

*A number of geodes which have been examined, have been found to contain a yellow powdery residue somewhat similar in appearance to the residue resulting from the decomposition of pyritised wood when the iron sulphate is washed away. This residue has not been analysed, but such analysis should be illuminating.*

*Other geodes, not from Crag, are completely hollow except for column-like structures linking the lower and upper surfaces, these often are lined with a glossy black coating resembling a form of pyrolusite.*

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**TEMPORARY EXPOSURE IN THE DRIFT NEAR CROMER**

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University of London, Regent's Park, London, UK.

**# INTRODUCTION**

*Excavations in connection with the building of the Clifton Park housing estate on the Runton Road at Cromer have revealed an interesting temporary exposure in deformed glacial and glaci-fluvial deposits. The precise location is on the northern flank of a small hill (+150' O.D., named Howard's Hill on the 6" map) near the western boundary of the Urban District of Cromer. At the moment the section lies parallel to and within 20 m of number 81, Clifton Park (TG 209 421). More houses are to be built in the immediate vicinity, however, and it is understood that the exposure will be at least partly obscured in the near future.*

*Description of the section:*

*These observations were made at the end of July and during mid-September 1970. The exposure was then 60 m in length and up to 4 m steep in vertical section. The succession would seem to be as follows:*

- |    |                         |     |                                                 |
|----|-------------------------|-----|-------------------------------------------------|
| 3. | <i>Gravel and sand.</i> | 2 m | <i>(maximum vertical thicknesses are given)</i> |
| 2. | <i>Yellow Sand.</i>     | 2 m |                                                 |
| 1. | <i>Chalky Till</i>      | 3 m |                                                 |

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**REPORT OF FIELD MEETING  
TO BRECKLAND 20<sup>TH</sup> SEPTEMBER 1970**

*C.E. Ransom*

The Nature Conservancy,  
19 East Hill, Colchester, CO1 2QX, UK.

**# INTRODUCTION**

*The meeting began at East Wretham Heath (TL 912 884), a reserve of the Norfolk Naturalists' Trust.*

*A description was given of the Great Ouse River Authority's ground water pilot scheme. This is being undertaken to see if it is possible to abstract water from the Chalk aquifer in such a way that percolation from rainfall and other surface water will provide continuous replenishment of the Chalk aquifer after the water table in the chalk has been lowered 7m by pumping.*

# No formal abstract available for this paper. (Summary account of field trip, 1970)

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