

CORRESPONDENCE

The Secretary,
The Institution of Civil Engineers.

DEAR SIR,

Mr Åke Holmberg in his letter (*Géotechnique*, VI : 4 : 190) concerning my article "Loading tests on clay" (*Géotechnique*, VI : 1 : 15), mentions that it is "an interesting problem, i.e., what is to be defined as failure load when testing plates on clay surfaces". He also points out that "it would appear to be a difficult matter to determine a relation between ultimate load on plates and the shearing strength of clay. The influence of loading rate in both tests must be determined". He mentions, too, that it is not satisfactory to choose the limit load as that when settlement speed is being neither accelerated nor retarded.

All these comments seem to be echoes of what is written in my article.

It is stated on p. 21 that "the tests were intended chiefly for a comparison between a relatively large number of plates under various loading conditions. The absolute values were thus not the most important item. The speed quoted is also approximately that used in the laboratory at the Port of Gothenburg for routine punch tests." The relation load-settlement-time is stressed in the diagrams, for instance, in Fig. 5. Different failure conditions are discussed on p. 22. The differences in failure load for the definitions mentioned were not very great. As the loading speed was somewhat unusual and was also correlated to the speed of a routine laboratory test, it seemed natural to choose a failure definition depending on time; and so *for these tests* the above-mentioned acceleration definition was chosen. Of course, it was not exact, but was suitable for the *comparative* test. One of the presumptions was that the time-settlement-curve of the clay was equal for *all* tests, which should be the case as they were all performed on the same clay.

Thus the opinions expressed by Mr Holmberg and by myself appear to be similar.

Gothenburg, Sweden,
31 January, 1957.

ALLAN BERGFELT
(Professor, Chalmers University of Technology).

The Secretary,
The Institution of Civil Engineers.

DEAR SIR,

PARTICLE SEPARATION IN CLAYS

The correspondence by Professor Skempton (*Géotechnique*, VI : 4 : 193) affords me a convenient opportunity to record my objections to the argument put forward by Skempton and Northey (1952).

In this argument, they postulate that the thickness of the adsorbed layer is reduced by leaching and, since water content remains constant during this process, it is concluded that the particles are effectively in contact.

No direct evidence is produced in favour of this postulate but, in indirect support, it is contended that the proportion of "free" water is thereby greatly increased so that the strength of the leached clay is lowered upon remoulding. But at this stage the argument has changed to a less fundamental level since there is no attempt to show how the mere