It follows that the vectorial sum of these two forces, the body forces and the forces acting across the slip surface must be zero. Thus if Z_n is the resultant of E_n and X_n:

$$Z_n + \sum(-Q_i) = 0$$

or

$$Z_n = \sum Q_i$$

Thus E_n and X_n can be regarded as the vertical and horizontal components of the resultants of the inter-slice forces.

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SOME RESULTS CONCERNING DISPLACEMENTS AND STRESSES IN A NON-HOMOGENEOUS ELASTIC HALF-SPACE

(GIBSON, R. E., *Géotechnique* **17**, No. 1, 58–67)

The full consequences of an earlier amendment (*Géotechnique* **18**, No. 2, 275–6) to this Paper were not fully developed by the Author. Although the errors remaining do not alter the sense of the Paper, they are misleading and merit correction.

The expression $(1+\xi z)$ which, as had already been pointed out, must be included in the integrand of equation (17), also requires insertion between the factors $\exp(-\xi z)$ and $\cos(x\xi)$ on the left-hand side of equation (18). The result is that those two terms involving inverse

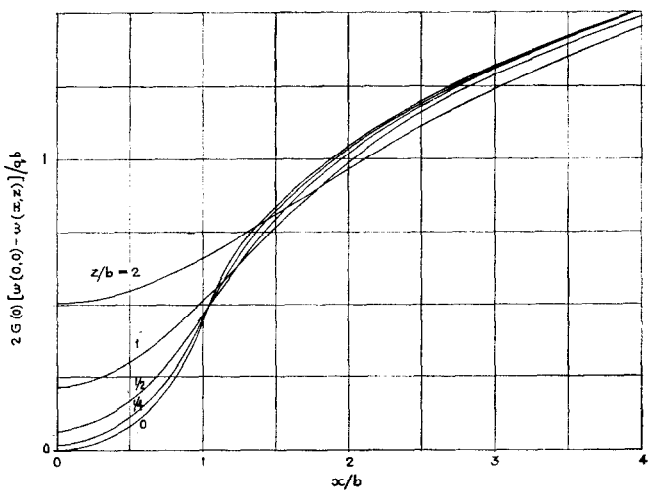

Fig. 2(a)

tangents on the right-hand side of this equation are annihilated, although equation (19) stands unaltered. It follows that Fig. 2(a), which is derived from equation (18), is incorrect; a corrected version is given here.

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MICROSCOPIC STRUCTURES IN KAOLIN SUBJECTED TO DIRECT SHEAR

(MORGENSTERN, N. R. & TCHALENKO, J. S., *Géotechnique* **17**, No. 4, 309–328)

We are grateful to Mr Ayyar (1968) for his comments regarding our studies into soil structure. In this contribution there appears to be some slight confusion regarding the various angles of shearing resistance. Results of tests on kaolin show clearly that the Hvorslev angle of shearing resistance is much greater than the residual angle of shearing resistance. No influence of initial structure on the residual angle would be anticipated in general. That the influence was slight on the peak angle of shearing resistance was, however, surprising. Whether the residual angle equals the angle of friction for the mineral is still an open question.

In reply to Mr Ayyar's request for information regarding our mounting procedure, we found that the epoxy resin adhesive Araldite AY.103 with Hardener HY.951 gave the best results. A mixture of 100 parts Araldite to 10 parts Hardener (by weight) and de-aired in a vacuum cell for about 20 minutes was spread evenly on the slide with the help of a glass rod. This hardens in about 24 hours at room temperature.

REFERENCE

AYYAR, T. S. R. (1968). Correspondence on microscopic structures in kaolin subjected to direct shear. *Géotechnique* **18**, No. 3, 382–383.

N. R. Morgenstern,
and J. S. Tchalenko.
16 October, 1968.