feature[6]. The undercoat usually forms a distinct group of hairs in the diameter distribution which are separated by a wide gap from the much coarser outer coat hairs, as, for example, in the wild sheep[2]. In the mammoth (Table 2) it is difficult to detect any gap, so that the diameters seem to have a continuous distribution.

It may be therefore that once secondaries have disappeared in evolution, they cannot be redeveloped, and so any new undercoat must be formed by increasing the number of follicles, and extending the diameter range, as seems to have happened in the mammoth. An objection to this interpretation is that the size difference between the primaries and secondaries is thought to be due to their development at different times and to follicle competition[6]. If the smaller follicles of the mammoth were developed later, they could therefore be regarded as secondaries.

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Note added in proof: After this letter had gone to press two more small samples were received from the USSR. Seven hairs from the Levar mammoth ranged from 14 to 39 cm in length, and from 98 to 260 μm in diameter with a mean of 179 μm. Three hairs from the Bereleh specimen ranged from 35 to 50 cm in length, and from 240 to 380 μm in diameter. The underwool of this sample ranged from 20 to 46 μm with one hair 70 μm in diameter, and an overall mean of outer hairs and underwool of 57 μm. These are evidence of the longer and coarser hairs mentioned in previous reports, but not found in the other samples of the present study.

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Kinetic Cyclopean effect

While watching noise displayed on a television screen recently I noticed a visual effect which I report here. As normally viewed, displays of video noise ('snow') have the appearance of fields of small speckles which seem to dart about at random. When, however, the noise is viewed monocularly, the texture of the field seems finer and the speckles more nearly static. The display seen monocularly has the appearance of a field of smaller speckles which scintillate *in situ*. I have shown the effect to about ten friends and colleagues, without telling them what to expect. All noticed some difference between binocular and monocular viewing and several promptly described exactly what I had seen. In general, the size change was more consistently reported than the motion change.

I have made a rudimentary effort to explore the effect using a noise display generated by passing the green (514 nm) beam of an argon-ion laser through a pair of ground glass plates, one of which could be translated at a controlled speed. The speckle pattern so generated was projected on a screen. The resulting field of wideband, randomly changing visual noise bore a strong resemblance to television 'snow', though its statistics were not identical[1]. Under the conditions of the arrangement the speckle pattern produced by interference at the retina was so fine that it was nearly invisible, and so could not be confused with the intended display.

The following observations were made by three people. (1) The difference between monocular and binocular viewing was clearly evident, and resembled the effect obtained with the television screen; excessively rapid translation of the ground glass, however, did diminish the effect. (2) There was no difference between monocular and binocular viewing appearances of the stationary noise field obtained when both ground glass plates were still. (3) The effect could be obtained when the images in the left and right eyes were uncorrelated. Such images were obtained by presenting a different portion of the display to each eye using cardboard tubes to facilitate binocular fusion. (4) The effect could also be obtained when half the visual field of one eye was blocked by a card. In this case, one half of the field consists of the noise display as seen monocularly, and the other half consists of the same display as seen binocularly.

The last observation indicates that the effect is not induced by any process occurring in the eye itself, such as a transient misfocussing caused by the change from one mode of viewing to the other. The effect is therefore Cyclopean[2] in nature. Since it can only be seen in a non-static visual noise field, the classification 'kinetic Cyclopean effect' seems appropriate.

That the effect can be obtained whether or not the noise is binocularly correlated might suggest that even when the binocular images of the noise fields discussed here are correlated, they in some way exceed the ability of the visual processor to perceive the correlation. In any case it is not clear why a planar field of randomly changing visual noise should not appear the same to two eyes as to one. An adequate explanation of this effect might yield new information about the functioning of the visual system.

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