## **Captured by Art**

IN HIS ESSAY "ARTISTIC CREATIVITY AND THE brain" (Science's Compass, 6 Jul., p. 51), Semir Zeki's proposal for a scientific approach to art through the science of neuroesthetics reminds me of a pronouncement by Russian poet Marina Tsvetaeva in her insightful and passionate essay "Art in the light of conscience" (1): "Whether a



Marina Tsvetaeva

command or a plea, whether it's by fear or by pity that the elements overcome us, there are no reliable approaches, neither Christian nor civic nor any other kind. There is no approach to art, for it is a seizure. (While you are still approaching, it has

already seized you.)" I recommend the rest of this fine essay to anyone seeking to approach art through science.

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## SCIENCE'S COMPASS

References and Notes

 Reprinted in M. Tsvetaeva, Art in the Light of Conscience: Eight Essays on Poetry, A. Livingstone, Transl. (Harvard Univ. Press, Cambridge, MA, 1992).

## **CORRECTIONS AND CLARIFICATIONS**

PERSPECTIVES, REPORTS: In the issue of 2 Mar., "When the compass stopped reversing its poles" by S. K. Banerjee (p. 1714) and "High geomagnetic intensity during the Mid-Cretaceous from Thellier analyses of single plagioclase crystals" by J. A. Tarduno, R. D. Cottrell, and A. V. Smirnov (p. 1779). In both related articles the unit of magnetic moment, A-m², is frequently erroneously given as "A/m²" or written out as "amperes per square meter."

REPORTS: "Quantum mechanical actuation of microelectromechanical systems by the Casimir force" by H. B. Chan, V. A. Aksyuk, R. N. Kleiman, D. J. Bishop, F. Capasso (9 Mar., p 1941). In equations 1 and 2, the variable z was defined to be the absolute separation between the surfaces. However, later in the report, in equation 7 and in one instance in the third-to-last paragraph (line 14), z was used again to denote the distance measured from the closest point of

approach in the experiment. Here, to correct the inconsistency, the authors define the latter distance as  $\Delta z$ , which is the distance between the two surfaces measured from the point of closest approach, so that  $z = \Delta z + z_i$  where i = 0 or 1. As described in the report,  $z_0$  and  $z_1$  are the closest approach between the surfaces in the calibration with electrostatic force and in the Casimir force measurement, respectively. The values of  $z_0$  and  $z_1$ , determined by fitting the data to theory, agrees to within the roughness of the surfaces. With the new notation equation 7, the electrostatic force between the surfaces, should read as follows:

$$F_{\rm e} = -\varepsilon_{\rm o} \pi R \frac{\left(V - V_{\rm o}\right)^2}{\Delta z + z_{\rm o}} \text{ for } \Delta z + z_{\rm o} << R$$

There was also a typographical error in the third-to-last paragraph in the sign of  $z_1$  in describing the comparison of the data with the Casimir force  $F_2(z)$  including the finite conductivity and surface roughness modifications. With the new notation, the sentence in questions should have read as follows: "In Fig. 3A, the red line is a least-squares fit of the experimental data with  $F_2(Dz+z_1)$ , in which  $z_1$  is a fitting parameter."

