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Letters

Kindergarten creativity

In your article "Send This Computer to Kindergarten" (SN: 7/7/84, p. 10), Ivars Peterson seems to propound two thoughts. First, that the essence of the architect's creative effort is in the discovery of primary forms which when repeated in various combinations or scales, prove to be esthetically pleasing. Secondly, reducing this process to its underlying mathematics, the creative architectural process may be reduced to "language" and thereby imparted to a computer, making the computer creative.

This raises two questions for me. First, when Peterson talks about "Alberti's vocabulary of elements," "Renaissance architects' particular procedures" or "Wright's cyclic groups," isn't he, in fact, reinventing fractals? The idea of a given form or ratio repeated on different scales subject to the rules of an algorithm is, as I un-

This Week

- 52 AMPTE Looks into the Invisible
- 52 NNTT: Multiple mirrors
- 53 'Psyching out' reaches high tech proportions
- 53 Inventory of sports fatalities and injuries yields some surprises
- 54 RNA tumor viruses show action at a distance
- 54 First portrayal of hydrogen birth
- 54 Old-time diamonds: Dating in the rough
- 55 Further attack on gene-splice tests
- 55 New bug comes in from the cold
- 55 Giving the business to ancient Maya trade

Research Notes

- 60 Biomedicine
- 60 Science & Society
- 61 Space Sciences
- 61 Biology

Articles

- 56 Peonies
Cover: The 3,000-year history of the peony in mythology, medicine, botany and art is captured in an exhibit now at the American Museum of Natural History in New York. The cover flower is a wild peony of the Greek island Samos. Its scientific name is *Paeonia mascula* subspecies *mascula*. (Lithograph by T. Katsoulidis, after a watercolor by N.A. Goulandris)
- 58 Acid Rain's Political Web



Departments

- 50 Science on the Air
- 50 Books
- 51 Letters

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derstand from your several fine articles, definitional of fractals.

Second, I suspect the beauty we might sense in viewing a computer-generated graphic, a castaway view of a chambered nautilus, or a well-proportioned building is indeed an instinctive response. ... Doesn't it then become impossible, by definition, to consider creative anything so well understood as to be reducible to an algorithm?

I would suggest that until such time as computers control their own evolution, it will be impossible for them to become creative in the strict sense, although they may soon be able to generate art at a level beyond human ability to differentiate what is creative and what is processed randomly, subject to the constraints of some algorithm. An analogy would be our current understanding of chess. In the mathematical sense (the strict sense), chess is *not* a game because played optimally, the result is deter-

ministic. However, for those of us still unable to "solve" chess (computers as well as humans, I might add), it remains a game in a way that tic-tac-toe does not.

Mark Fejta
Metairie, La.

Dog days

Loss of blood through the alimentary tract during extreme exertion may be news for humans ("Long-distance racers give from the gut," SN: 6/30/84, p. 406), but the phenomenon is a well-known problem for racing dogs. Sled dogs, particularly lead dogs, tend to overexert when first starting off on a run. The result can be painful bowel movements that are mostly fresh blood in quantities much larger than those reported in the article.

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JULY 28, 1984

51