

CREATION OF ORNAMENTS BASED ON A NEW DISCRETE DYNAMICS ALGORITHMS

Vladimir Gontar

Ben-Gurion University of the Negev, P.O.B. 653 Beer-Sheva 84105, Israel.

Producing ornaments is one of the oldest creative activities of human beings. It is a complicated procedure requiring intellectual efforts and special talents. Computer based technology can contribute a great deal to this process. However, the existing software has limited facilities because the designer or artist needs to interact with the computer during the whole period of the production. This fact makes the creation of ornaments a long time procedure and expensive. The success also depends on the skillness of the designer.

Thus it is desirable to find a fully automatized program for generating ornaments in which a designer does not have to interfere during this process, but only choose the best ornaments from generated samples.

These software needs are the background against which we developed the new software. Within this software, a designer manipulate with the parameters of the mathematical model in order to get a set of ornaments for each combination. The variations of the parameters are made to be user friendly and do not require any special instructions.

The experience of using the program step by step will educate the designer and increase his facilities of making new ornaments and other patterns.

The software is based on the new discrete dynamics algorithms, developed by the author[1]. No initial information about colors and geometrical forms is needed.

Enclosed you will find some of the ornaments obtained by proposing new technology.

[1] V.Gontar, Theoretical Foundation for the Discrete Dynamics of Physicochemical Systems: Chaos, Self-Organisation, Time and Space in Complex Systems, "Discrete Dynamics in Nature and Society", 1997, Vol.1, No.1, pp.31-43.