TABLE OF CONTENTS

PRINCIPLES OF AESTHETICS

The mere existence of Computer Olympiads tells us that the world of technology has a successful relation with the world of games. Continuing the string of connections, we may observe that technology is related to science, and games are related to competition. In these two sentences there are many elements of which we may wonder how they are intrinsically connected. The great philosopher Herman Dooyeweerd (1894-1977; Vrije Universiteit Amsterdam, The Netherlands) is the founding father of the idea that there is "a philosophically original understanding of properties and functional relations between things, events and societal relationships in reality". The idea is subsumed under the general idea of a unique *sphere of laws*.

In the world of games, winning a game is the most important thing. It is almost independent of the way in which a win is materialized. Of course, fair play is a prerequisite, but within the written and unwritten rules of play *all* may happen. International Grandmaster Hein Donner once remarked: "I am most satisfied by winning a game from a lost position." He explained the satisfaction by analyzing the game as a fight and by establishing that the feelings of his opponent must be fully devastated by what happened to him/her. Donner believed for himself that these good feelings outperformed by far any other feelings that may be with him when delivering a piece of art in the form of a brilliant game with many beautiful or even aesthetic moves.

Here, the question may be posed: is it possible to compare a chess fight with aesthetics? Before we attempt to answer this question we should know what aesthetics means in chess, and maybe in a wider sense, and how we can relate aesthetics to other concepts.

In his general theory Dooyeweerd distinguished fourteen law-spheres. They were characterized by three issues, viz. (1) universality in its own environment, (2) sovereignty in its own environment, and (3) an ordered sequence. The second characteristic is the most important one and, in a sense, decisive for the existence of the law-spheres. Our readership will understand that is impossible to explain here the law-spheres to its full extent. However, in relation to the main topic of this issue of the Journal, Aesthetics, it may be important to indicate the place of this concept in the hierarchy of elements investigated in our world of Artificial Intelligence.

Dooyeweerd's theory is a first step to determine the place of aesthetics. Without further discussion we reproduce the ordered sequence given by Dooyeweerd and see that Aesthetics is the eleventh law-sphere. The full series (from low to high) reads: (1) Arithmetic, (2) Spatial, (3) Physical, (4) Biotic, (5) Psychic, (6) Analytic, (7) Historic, (8) Linguistic, (9) Social, (10) Economic, (11) Aesthetic, (12) Legal, (13) Ethical, (14) Pistic (from Πίστοσ, belief, faith, trust). Obviously, the order is inspired by ideas as developed in Reformation and Scholasticism in Philosophy. Yet, it may serve as a pointer for our research.

In a note (pp. 32-39) Azlan Iqbal (Tenaga, Malaysia) deals with the question: Is Aesthetics Computable? He cites Margulies (1977) who identified eight principles of aesthetics. Although the work is a first step only, it is undeniably a sign that a new research area is in front of us, fit for deeper investigations. Between the lines we read the thoughts and ideas from John McCarthy (Stanford University).

Your Editor admits that the ideas as expressed in the note cited above have an explorative character, some may call them even speculative. However, in this respect we are proud of the supportive contribution by Fridel Fainshtein and Yaakov HaCohen-Kerner (Ramat-Gan and Jerusalem, Israel) (pp. 3-23). In a well-thought and well-written article they describe how their program CHESS COMPOSER is able to improve chess compositions in an aesthetic way. Their results are convincing and they clearly open a new research area in which the first investigations were performed about twenty years ago by Michael Schlosser (*ICCA Journal*, Vol. 11, No. 4, pp. 151-155). The current article forecasts a close cooperation between human chess composers and scientists.

What does this breakthrough in programming and computer performance tell us about the future? More precisely formulated: which law-sphere can a computer enter in the near future? Will a program once be classified in law-sphere 13 or even in law-sphere 14? It is hard to predict. For the moment, we should be happy in the law-sphere of Aesthetics. With an eye on the Reformation and the Scholasticism I would like to recall Gilbert's (1539? – 1583) words: "Though the Philistines may jostle, you will rank as an apostle in the high aesthetic band." With much optimism and many expectations I look forward to the results of the Computer and Games Conference 2006, in Turin, Italy, on May 29-31, 2006.

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Change of residential address
Please note that as of March 15, 2006 our residential address reads Tongersestraat 6, 6211 LN Maastricht, The Netherlands. All our other coordinates remain unchanged.

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