Introduction

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Biographical notes: Christian Gagné received his BIng in Computer Enginering and PhD in Electrical Engineering from Université Laval in 2000 and 2005, respectively. He is a Professor at the EECE Department of Université Laval since 2008. His research interests are on the engineering of intelligent systems, in particular systems involving machine learning and evolutionary computation. He is a member of the editorial board of the *Genetic Programming and Evolvable Machines Journal*, and participated to the organisation of several conferences. He co-organised the first five editions of the Evolutionary Art Competition (renamed later the Evolutionary Art, Design, and Creativity Competition) at the GECCO conference.

Pier Luca Lanzi is an Associate Professor at the Politecnico di Milano, Dipartimento di Elettronica, Informazione e Bioingegneria. His research areas include evolutionary computation, reinforcement learning, and machine learning. He is interested in applications to data mining and computer games. He is the Associate Editor of *Evolutionary Computation Journal*, the *IEEE Transaction on Computational Intelligence and AI in Games*, *Applied Soft Computing*, and *Evolutionary Intelligence*.

The special section on evolutionary arts of the current issue presents some of the best submissions received at the evolutionary arts competitions of 2009 and 2010, organised at the Genetic and Evolutionary Computation Conference (GECCO). These are the two first editions of a competition that have been running at the conference every year since then, although with a slightly revised name and scope in the latest editions.

The first run of competition in 2009, for which Pier Luca Lanzi, Christian Gagné, and Jon McCormack acted as main organisers, received ten entries. One of the two winning selections is presented here in the paper 'Evolving self portraits with Mandelbrot math' of Jeffrey Ventrella. This paper presents an original use of evolutionary algorithms for evolving fractals expression based on Mandelbrot sets, in order to fit some target pictures. The self-portraits obtained from a picture of the author are expressive pieces of fractal art, reminding a human head at a glance, while being fairly foreign to the original image when looked carefully.

The second paper of this special section, 'Pherographs and other hidden landscapes' of Carlos M. Fernandes, was selected as finalist of the 2009 competition. The paper discusses at large the roots of evolutionary and swarm-based arts, before presenting the concept of pherographia, where artificial ant colonies are used for making deep alterations of images, hence producing original artwork.

As for the 2010 competition, organised by Christian Gagné, Scott Draves, and Jeffrey Ventrella, eight entries were received. The winning entry of Fernando Graça and Penousal Machado is detailed in this issue in the paper 'Evolving assemblages'. It presents an approach for making a large-scale assemblages of 3D objects to recreate some given image or 3D model. It results in elegant and sophisticated artworks, which have been really positively received by the jury of the 2010 competition.