

## Press Information

September 2009

### PROTOQUADRO AND GENERATIVE ART



**Berlin, Germany** - Federico Bonelli and Maurizio Martinucci are two Italian artists currently resident in Amsterdam who, in cooperation with Philips Research, have created a number of digital artworks known as 'protoquadro'. Here Federico Bonelli explains certain characteristics of this form of expression, which falls under the generic category of 'generative' art.

#### **What was the starting point?**

We set out to use flat screens in a different way than just showing TV. We wanted to transform them into objects with artistic value which enhance the aesthetics of the room. The most important thing we felt we could add to a normal artistic technique is the inclusion of time. We have included algorithms so that the piece can be left alone to evolve. In doing so, we realized we could create something long thought about but never realized; a painting that develops after it is finished.

#### **So the images you see keep evolving?**

Yes, during the entire lifespan of the work every moment is unique; no image you see is ever the same as any other. Yet at the same time we make sure that the creator has a means of control. So I can decide, as a painter would, the aesthetic qualities and boundaries of my work, and any evolution that takes place has to do so within this framework. There is therefore recognition of the theme no matter which changes occur. And even the notion of change itself is inherent in art. One of the characteristics of a great painting is that every time you look at it you see something different. We have just put that into a new context.

#### **How did you come up with the concept for the protoquadro on show at the IFA in Berlin?**

We were fascinated by the color of light when it passes through ice. We took photographs in northern Norway and used them as a basis for the concept. We then added an abstract component through the algorithms which emphasizes and highlights the geometry and shapes.

#### **Where does the name come from?**

Protoquadro comes from a mixture of Greek – *proto*, meaning first - and Italian, in which *quadro* means a painting, in terms of something you hang on the wall.

**How difficult is it to master both the artistic side as well as the technical skills necessary to create a protoquadro?**

In different ages artists had to master many different skills. Few artists can make their own colors these days, whereas in the times of Leonardo da Vinci, and even up to the early industrial age, this was a pre-requisite. In that respect we are not being asked to do anything new.

But if you consider the specific expertise we need, we do have knowledge of algorithms. For instance we've been developing the one driving the piece on show in Berlin since 2006.

Philips has helped us with technology that we did not have and could not develop ourselves. This has enabled us to build up a lot of knowledge on what kind of images works best and what kind of compositing tricks we can use. It's very exciting, because it allows us to create new objects that have never been thought of before.

**Which other 'generative artists' have inspired you?**

Brian Eno started working on sound that changed over time, algorithm-generated music, in Music for Airports in 1978. Our early work in 2004 was predominantly a visual enhancement of the philosophy behind the work he carried out in the 70s. To a certain extent some of the stuff Alexander Calder was doing in the 1940s could also be displayed as generative art. But to be honest, I'm not particularly interested in the universe of generative art practitioners. We just do our thing.

**How large a role does technology play?**

It's important but is only one part of the equation. The idea behind the protoquadro can be 2000 years old. Involving technology may allow you to do things faster, but if you put garbage in you still get garbage out. Making a quality end-result is a never-ending quest and is largely technology independent. One of the first protoquadro projects was on a small digital photo frame. It was so slow, much slower than on our computer, but the fact that it was changing so slowly gave it its own beauty.

Working with Philips, we have scaled up our protoquadros to wall-sized works and multiple screens. And Philips has, for example, applied its motion sensor technology to develop an interactive version of protoquadro that accelerates the speed at which the image evolves when someone approaches.

**How many protoquadro artworks have you already created?**

We have made eight already. Each is available in a limited series of generally less than 10. But even within this limited series, if you run the same images on the same screen using the same algorithm they will produce a different result. Even after five minutes they would start to differ. In that respect every one is truly unique. We have already exhibited in the US, Germany, Italy and the Netherlands.

**What kind of comments do you get from the more conservative side of the art world?**

You have to remember that I come from Italy, where some people seem to think that if you haven't been dead for at least half a century you can't call yourself an artist or a philosopher! So you quickly learn not to bother too much about what is said.

**But don't you get people claiming that what you make is nothing more than a glorified screensaver?**

The artistic content is very high in the protoquadro; it will typically take us four months of work to make a new one. They can also run across multiple screens or even beyond the confines of the screen, for instance through a projection. We also develop each piece specifically for the environment it will be shown in, so we have to consider how high it will be hung on the wall and the aesthetic balance inside the room. And remember, each one is a one-off. It's also important to note that the protoquadro is all that happens on the screen. It's not as if you would use it at other times to watch TV. The screen is the platform for a piece of art, nothing else.

For further information, please contact:

Hans Driessen

Communications Department Philips Research

Tel.: +31 40 27 46 692

Mobile: +31 6 10 610 417

E-mail: [hans.driessen@philips.com](mailto:hans.driessen@philips.com)

**About Royal Philips Electronics**

Royal Philips Electronics of the Netherlands (NYSE: PHG, AEX: PHI) is a diversified Health and Well-being company, focused on improving people's lives through timely innovations. As a world leader in healthcare, lifestyle and lighting, Philips integrates technologies and design into people-centric solutions, based on fundamental customer insights and the brand promise of "sense and simplicity". Headquartered in the Netherlands, Philips employs approximately 116,000 employees in more than 60 countries worldwide. With sales of EUR 26 billion in 2008, the company is a market leader in cardiac care, acute care and home healthcare, energy efficient lighting solutions and new lighting applications, as well as lifestyle products for personal well-being and pleasure with strong leadership positions in flat TV, male shaving and grooming, portable entertainment and oral healthcare. News from Philips is located at [www.philips.com/newscenter](http://www.philips.com/newscenter).