

# From Sketches to Scenes: How to Develop Games

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## The new digital technology images

The easy access and crescent use of computer systems provide the possibilities to domain and acquire knowledge about the production of images, bringing the convergence over other languages and representation techniques.. To produce entertainment contents, creational process is quite the same when compared to traditional medias. Poissant (1997, p. 82) quoting: “Changing attitudes are essential, either spirit or body, to capture when those images are innovative and how are they fundamentally transforming our environment. At first, they permit access under a sensible way to a variety of universes to which the representative forms would stay abstract without the visualization that computers permit. After all, such images using animation can reproduce objects or process motion or the creation and metamorphosis from the image itself”. According to Couchot (2003, p. 162), it was not only image morphology that has changed or its generation methods but the way to distribute, transmit, reproduce, store, spread and finally, socialize. By this way, from the very moment of image creation, developed with calculation or language, the representational view and its relationship with real things and with the imaginative and, in widely way with the symbolic economics of society were strongly modified. Images of synthetic results appears when the image source is not found in any image or real object but only in a computational process or when the mathematical description precedes any other information.

Technological development cause a wide source of impacts in perception and artistic creation of images, according to Poissant (1997), Couchot (2003) e Rush (2006, p. 186), “with Technologic Art the expression media itself changes radically when technology change”. The mathematical description of an object, in the case of images of synthesis can offer, according to Couchot

(2003: 163), another information about itself and environmental relationship. That information happens to be fundamental for game production and, for example, to animate characters, body modeling and motion, like walk or run. Image can have a relation with real models and previous knowledge. In this way, to simulate, for example, a body over water, with the running river and under rain (figure 1), algorithm construction and numeric matrix will certainly obey the optical models for light refraction under water and hydrodynamics process of a river flowing among stones.

## Computer games and creational process

Game development market in Brazil, in the year 2005 according to ABRAGAMES (Brazilian Association for Game Development), is commercially unexpressive when compared to other markets like USA, Japan and UK. But Brazilian companies and game can count on a sort of incentive programs by governmnetal agencies. The RPGEDU project, with financial suppor from CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico) and FINEP (Financiadora de Estudos e Projetos), was created to develop an educational entertainment software and the final product is “Taltun: The Land of Knowledge”, with its first demonstration version concluded in August, 2007(BRANDÃO et al., 2006). Images utilized in Taltun were produced with a melt of procedures and visual references to create scenes and characters, like the observation of commercial productions like Ragnarok.<sup>1</sup> Specialized literature for game development and RPG, books like Dungeons e dragons,<sup>2</sup> and the movie and books of the trilogy The Lord of Rings,<sup>3</sup> besides comics and manga magazines were used as a source of information.

Other authors like Huitric and Nahas (1997, p. 109 - 110) advocate that digital photography applied on

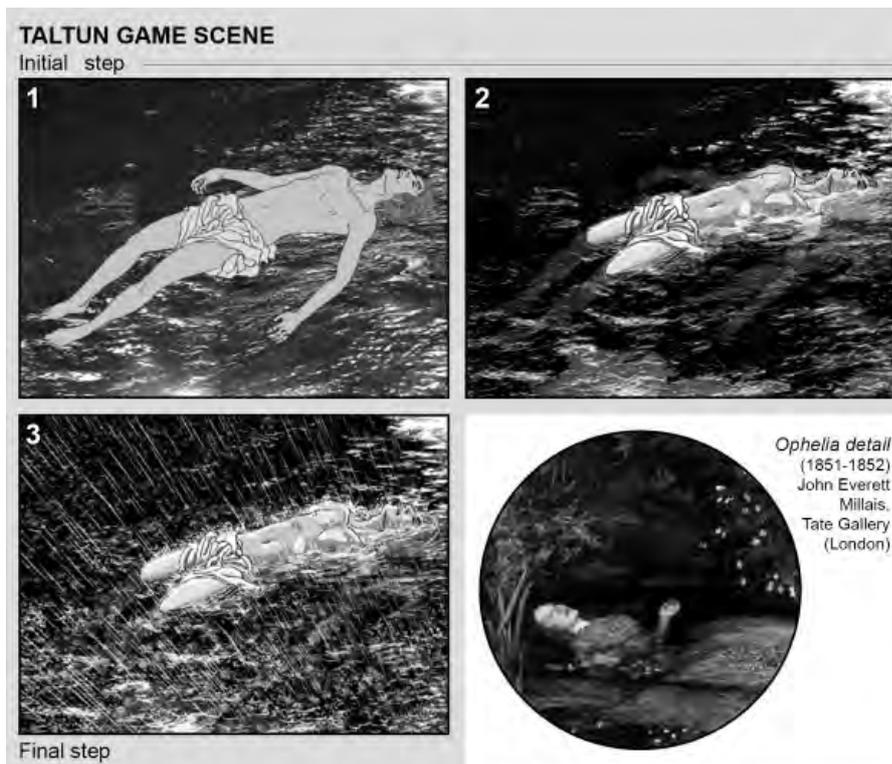


Figure 1: Final scene Taltun compared with Millais' Ophelia

3D images and joined to the copy of any image model (classical 3D characteristics) gives the possibility to the artist to amplify its contribution, or: "It is established that numerical copy has its own degrees of freedom: perspective, color and material modify the copy. On the other hand, besides the study-copy, the personal style of the artist can dispose over a rich palette the accents in a model, thousand of deformation variables, color exaggerate and any other model manipulation. These new real introduced data can carry to a final version as a fusion between real and imaginative image". The used expression *concept art*, according to Rouse (2001) may be applied to a set of sketches, color tests and 2D or 3D image conclusion; all those elements are part in a final

game visual process. The final concept is indeed responsible for related processes to image development and to the realism grade or platform imposed on storyboard development, scenery and characters that are the components of the game (PRADO; STELKO, 2005). In this case, we can use the link between the creation process in Taltun and the image of Ophelia (1851-1852), by John Everett Millais, Tate Gallery (London, UK) and texts about mythological aspects presented by Bachelard (1982), as base for a production for a 2D scenario, modeled afterwards in a 3D solution. The dramaticity of scene suggests the death of the major character in Taltun, compared to Ophelia's (Millais), presented unconscious and with her body underwater. (figure 1)

Facing the possibilities presented by technology, Barbosa Júnior (2002, p. 155) resembles the imaginative nature of the artist, facing art and science in its survey. Couchot (2003, p. 287 - 288) defends the autonomy of art when it is compared with the integration between science and technology, suggested by the insertion of models since the historical origins of the creative and artistic processes. Computer graphics and 3D modeling, according to the author, contribute with the construction of most of the fundamental elements for the visual final process to computer games, as those elements permit the manipulation and application of artistic concepts by using a set of technological tools.

- 1 RPG online game, created by Gravity Corporation, South Korea, 2002.
- 2 RPG of medieval phantasy, Gary Gygax e Dave Arneson, based on J. R. Tolkien. USA, 1974.
- 3 Phantasy novel by J.R.R. Tolkien, developed from 1937 to 1949.

#### References

- ABRAGAMES. 2005. *A Indústria de Desenvolvimento de Jogos Eletrônicos no Brasil*. São Paulo. <<http://www.abragames.com.br/noticias.htm>> 20 January 2006.
- Bachelard, G. 1989. *A água e os sonhos*. São Paulo: Martins Fontes.
- Barbosa Júnior, A. L. 2002. *Arte da animação: Técnica e estética através da história*. São Paulo: SENAC.
- Brandão, A.L.; Brancher, J.D.; Bandeira, D. A.; Meneguini, L.S.; Aguiar, M. P. ; Mizukawa, N. Y.; Padilha, C. C. 2006. *Planejamento gráfico de Interface para um jogo RPG Educacional para computadores*. In ANAIS WJOGOS 2006. V Workshop Brasileiro de Jogos e Entretenimento Digital. Simpósio Brasileiro de Jogos para Computador e Entretenimento Digital. São Paulo: SBC.
- Couchot, E. 2003. *A tecnologia na arte: da fotografia à realidade virtual*. Porto Alegre: Ed. da UFRGS.
- Huitric, H.; Nahas, M. 1997. *Instrumentos do virtual: novas alianças entre a arte e a ciência*. In
- Poissant, L. 1997. "Estas imagens em busca de identidade." In Domingues, D. (org.). *A arte no século XXI: a humanização das tecnologias*. São Paulo: Fundação Editora da UNESP, pp. 81 – 93.
- Prado, S. L. N.; Stelko, M. 2005. "Modelagem de personagens." In Azevedo, E. (coord.). *Desenvolvimento de jogos 3D e aplicações em realidade virtual*. Rio de Janeiro: Elseiver, pp. 147-191.
- Rouse, R. 2001. *Game design: theory & practice*. Texas: Wordware Publishing.