

**Comparative analysis of the stylistic development process of the product  
“automobile”**

by Enrico Pivato

Tutor: Lauro Borgarelli

Co-tutor: Guglielmo Cartia

(in association with Pininfarina Studi e Ricerche)

The aim of this thesis is to describe and analyse the styling process of a car through the analysis of the standard development process, the experimentation of an ipotetic case and the significance analysis of four historic cases to view the critical steps and the possible optimization.

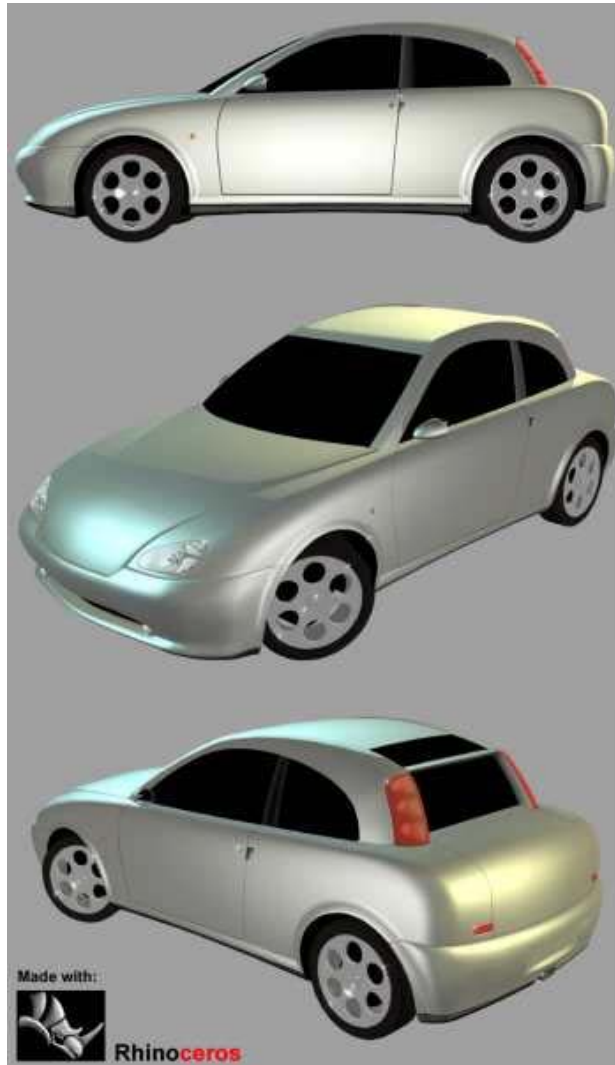


Standard development works through the following steps:

- ❑ Briefing, or the introduction of a document with product requirements by the client;
- ❑ Stylistic research, or the transportation on paper of the styling proposals;
- ❑ Sketches choose, or the choose by the client of the project to develop;
- ❑ CAS modeling, or the realization of a 3D virtual model;
- ❑ Solid model, or the milling of the real model;
- ❑ Wind tunnel test, or the confirm of the aerodynamic validity of the car;
- ❑ Presentation, or the verify meeting with the client;
- ❑ Modify cicles, or the introduction of changes to the model;
- ❑ Milling, or the realization of a new correct model;
- ❑ Maquetting, or the simulation made to the final model to render it as real as possible;
- ❑ Final presentation, or the ultimate acceptance to carry on the following steps.

The experimentation of the ipotetic case follows the steps yet described, applying them to the development of a two-spaces car wich will have some sketches, a virtual model and a 1:4 scaled real model. In this case the various steps will be simplified respect the real case, but it's equally possible to see the troubles and the crytical steps.

The significance analysis of four historic cases wants to prove wich are the most problematic factors for the styling process and it's obtained through the graphic overlay of the realization times of the various development steps to see the difference between each other.



From the analysis it's possible to prove the following critical factors:

- Project complexity, or the product technical level;
- Introduction of changes, or the changing of some particulars in an advanced develop fase;
- Client requests, or the imposition by the client of his working method ;
- Kind of car, or the car typology (series car, niche car, etc.).

Conclusions:

car's world is the most complete and difficult application field for designers.

It's always looking for new input and practicable roads. New technologies brings today to drastically short the development process, but styling still remain one of the principal success factor for an automobile because it has the difficult task to realize the brand values and other hidden values, such as comfort, performances, innovation.



Foto del  
modello fresato

A good designer is who's able to foresee or create new trends.  
The cut of project development time was possible by using new informatic technologies which allow the use of an unique language through the whole process, overlaying fases that once was made separately.  
To get a flowing process is then necessary a good feeling between client and styling center and the right use of the available technologies.  
Styling center will be then as flexible as possible and have an high availability of specific know-how to best adapt to different cases.

For further information: e-mail [e\\_pivato@hotmail.com](mailto:e_pivato@hotmail.com)