

Design Perceptions and Emotional Impact of Cars: a collaborative project between CarMen GmbH and Transportation Design students at Northumbria University, Newcastle upon Tyne, UK.

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Project outline

Stage 1: Design Perception

Q) What is the correlation between social status/social group and design perception?

Through their experience CarMen have produced a complex "Image Map" of users design perception which already shows a rough correlation between design taste and social grouping. To enable students to begin to understand the process of mapping user design tastes against social groups a preliminary research exercise was set up.

The students first role was to undertake a thorough information gathering exercise in the North East (and further if necessary) to enable them to build up a comprehensive image map for CarMen.

The first stage of the collaborative project required students to assume the role of market researchers going out into the public and engaging people in first-hand research in the form of questionnaires and "taste testing" sessions. Students were asked to propose, develop and enact their own forms of research activity above and beyond the ones defined by CarMen in order to effectively generate valuable qualitative data. Students had to display the ability to be highly resourceful, innovative and dedicated in the way that they sourced appropriate research material.

Students were asked to search out differing social groups/demographic to successfully complete this stage in the project. Students were provided with research materials but it is up to them to ensure that the data and results are as broad and deep as possible. Students were asked to make detailed records of the research activities they were undertaking and as part of the submission include a critical appraisal of the first stage to CarMen for their records in Microsoft Word format.

This activity's research findings were presented to Carmen in Power Point presentation format. These were then collated by the teaching team and submitted to the client.

Stage 2: Emotional Profile

"The design of a vehicle creates through its form language a kind of visual message which has an emotional impact on the customer. CarMen would define this visual message as the "Emotional Profile".

It was up to each team to understand how we might define this profile. What are the main factors? Can we create a profile which can be used to measure the effect of any car?

It was their job to undertake detailed research using existing vehicles and to map their emotional profile. They were asked to draw up a working profile of a comprehensive series of vehicles that have similar characteristics. They would be looking at all of the emotional/rational elements that make up their form, what these say about the vehicle and then asked to develop up a "tool-kit" for analyzing future designs.

The task:

It was the student's task to develop a type of emotional profile "differential survey". This is where any given design can be introduced, put under the scrutiny of the analysis technique/tool they developed, and an emotional profile reading produced at the end. The success of the technique would be in its efficiency and accuracy of judging the emotional profile of a design when used to develop new vehicle architectures.

The second part of this stage was for the students to design a series of vehicles with pre-defined emotional profile requirements and use the techniques their team developed to produce accurate solutions. This can be described as the litmus test for their proposal and is an essential part of proofing its ability to do the job.

This stage needed to be undertaken with a high level of sensitivity as the final renderings needed to be produced to a photo-realistic standard. Students were allowed use any technique at their disposal which they felt an affinity with, CAD/Photo Shop/manual renderings, and they were made aware that they may need to apply a mixture of all techniques to provide an accurate image.

Output:

- Research document word format
- Power Point presentation describing the tool/technique
- Design sheets, either 2D renderings or Photoshop images clearly annotated
- A series of 5 vehicles with front and rear 3/4 renderings from a worm's eye perspective