Designing Exterior Form of a Passenger Car with Aesthetic Tension

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ABSTRACT

Exterior form of passenger car is a very important factor for attracting consumers. Different images need to be created to meet expectation of various target groups. Normally adjectives are used to describe image of car styling while many designers tend to use "tension" to characterize certain features. To interpret the meaning of aesthetic tension in car design more precisely, this research tried to summarize related notions in literatures and conducted interview with experienced car designers to get their viewpoints. Based on aforementioned results, a passenger car exterior form was designed with intention to show aesthetic tension. Photos of new design, together with nine existing car models considered as possessing tension characteristics, were shown to ten subjects and asked them to mark five most attractive lines or portions of those models. The results were analyzed to see if they coincided with the aesthetic tension features, which designers intended to attract consumers.

Keywords: Car, Styling, Image, Aesthetic tension

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REFERENCES

中文文獻 1. 小林重順,1991,造形構成心理,藝風堂出版社。 2. 安海姆 著,李長俊 譯,1985,藝術與視覺心理學, 雄師圖書股份有 限公司。 3. 沈美華,2002,奔騰-靜與動的迸裂與綻放, 中國文化大學藝術研究所碩士論文。 4. 林俊明,1997,產品風格量化描述研究 —以轎車型態為例 , 雲林科技大學工業設計研究所碩士論文。 5. 林崇宏 , 1999 , 造形 設計 藝術 , 田園城市出版社。 6. 施皇旭 ,2005,系列車款造形風格演化之研究, 台灣科技大學設計研究所碩士論文。 7. 康丁斯基 著,羅世平、魏大海、辛麗譯,2003 ,康丁 斯基論點線面,中國人民大學出版社。 8. 張東豪,2003,以都會區生活型態觀點探討e化房車座艙意象與內裝造形設計, 大同大學工業 設計研究所碩士論文。 9. 教育部國語推行委員會,1994,教育部國語辭典網路版(http://140.111.34.46/dict/),教育部。 10. 陳晉玄 ,2003,消費者對產品識別之視覺認知研究 以汽車造形為例 ,台北科技大學創新設計研究所碩士論文。 11. 陳鴻源 , 2000 , 汽車輪廓 形態意象與區分特徵關係之研究 成功大學工業設計研究所碩士論文。 12. 蔡詩怡, 2003, 汽車造形輪廓之型態特徵辨識與認知之研究, 雲林科技大學工業設計系碩士班碩士論文。 外文文獻 13. Arnheim,Rudolph, 1974, Art and Visual Perception: A Psychology of the Creative Eye, University of California Press. 14. Bernobich, Edo and Emilio Chirone, 1982, Development of the design of car bodywork from first concept to prototype, Design Studies, vol.3 no.1 pp.23-29 15. Cappadona, Filippo, Jacques Goussard, Laurent Sutra, 2003, FIORES-II:A quantitative approach of aesthetic notions, MICAD conference 2003, 1-3 April 2003, Paris. 16. Cappadona, Filippo, Jacques Goussard and Laurent Sutra, 2003, FIORES-II:A quantitative approach of aesthetic notions, presentation power-point file, MICAD conference 2003, April 1-3 2003, Paris. 17. Car Design News(CDN), http://www.cardesignnews.com 18. Catalano, Chiara E., 2004, Feature-Based Methods for Free-Form Surface Manipulation in Aesthetic Engineering, Ph.D thesis, Genoa University, Italy. 19. Catalano, Chiara E., Franca Giannini, Marina Monti, and Giuliana Ucelli, 2005, Towards an automatic semantic annotation of car aesthetics, Istituto di Matematica Applicata e Tecnologie Informatiche (IMATI)- Consiglio Nazionale delle Ricerche (CNR), Italy. 20. Catalano, Chiara E., Franca Giannini, Marina Monti, and Giuliana Ucelli, 2007, A framework for the automatic annotation of car aesthetics, Artificial Intelligence for Engineering Design, Analysis and Manufacturing (AIEDAM), Volume 21, Issue 1, pp.73 – 90 21. Dankwort, C. Werner and Gerd Podehl, 1998, A New Aesthetic Design Workflow - Results from the European

Project FIORES, CAD Tools and Algorithms for Product Design, Springer-Verlag 2000, pp. 16-30 22. Giannini, Franca and Marina Monti, 2003, Design intent-oriented modelling tools for aesthetic design, 11th International Conferences in Central Europe on Computer Graphics, Visualization and Computer Vision (WSCG) conference 2003, February 3-7 2003, Czech Republic. 23. Japanese Car Fans, http://japanesecarfans.com 24. Net Car Show, http://www.netcarshow.com 25. Podehl, Gerd, 2002, Terms and Measures for Styling Properties, Proceedings of the 7th International Design Conference, May 14-17 2002, Dubrovnik, Croatia. 26. Simon, Bell, 1993, Elements of Visual Design in Landscape, Spon Press, UK. 27. Speedy Cars, http://www.speedycars.net