Electromedative car art

Towards new education modes at the core of traffic cultures

Introduction

Ecologically meaningful energy, social performance and advance in technological solutions have always been catalysts for vehicle innovation in a welfare economy, creative culture and civilization.

The design of cars has been originally a challenge for architects[1] [2]. The design of automobile has been naturally considered as a problem for engineering. This is evident, if we look early steam car of enlightenment or the real automobiles of Daimler or/and Benz from 19th century. The development of auto has been based on scientific innovations. In the big changes of the world the idea of a car or automobile may also change and then art is needed in forming new concepts[3] [4]. Science fiction might take command.

Here we consider car art from the perspectives of:

"Copyright owner", car, car art public

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[1] Mayamata, *Mayamata, An Indian Treatise of Housing Architecture and Iconography*, (trans.) H. Dagens, (Sitaram Bhartia Institute of Science & Research, 1985)

[2] Schildt, H., *Vitruvius ja Mayamata*, HUT-A (Otaniemi, 1995)

[3] Le Corbusier, *Ausblick auf eine Architektur* (Ullstein, 1922/ 1965), 105-116, 206

[4] Giedion, S., *Walter Gropius, Mensch und Werk* (Hatje, 1954), 103, 105

Individual, collective, historical significance

These views are familiar from art study in general[5] [6] and the contents are discussed under the subparagraphs. In general our theme is Car Art in electromediative (EMe-) society[7].

"Copyright owner"

A car may be equipped in a factory or by private actors. Private actors vary from professionals to amateurs. Some in the chain may have artistic talent and the idea of car art is reasonable. All car design has at least a seed of artistic talent. Today assembling cars means the notification of an abundance of electromediative support. Part of this support is assisting, part consulting and part advising. A car developer in electromediative society may well be a car artist or an artist of his/ her life style. The assembling of a car is comparable to artistic expression.

Electromediative car is designed as based on long story of scientific development in physics[8]. At the level of basic study the copyright is reserved, but here we mean the copyright to combine basic ideas and later interpretations in development work. The new car is a complex design comparable to mobile phones. A lot of such products are also more or less integral parts of the new car milieu.

Car

[5] Oksala, T., *Philosophical Problems in Architecture*, DATUTOP (Tampere, 1984)

[6] Routila, L - O., *Taidekasvatuksen tieteenala,* (Clarion, 1995)

[7] Oksala/ Lasker, G. E., Hiwaki, K., *Sustainable Development and Global Community,* Volume XII, IIAS (Baden-Baden, 2011)

[8] Anastopoulos, Ch., *Particle or Wave* (Oxford, 2008)

Car itself is tool for traffic but also a medium in multi-dimensional and creative communication[9]. Car or its parts may be artworks in car art symbolizing the expression of the car-owner. In fact the way to keep a car is a art work as a performance, but the product concretizes the game. All kind of car maintenance needs a skill and style in "eye + hand" collaboration, as is well known in the case of bicycles.

In car art the total masterpiece is of course, as in total art, the whole car or a set of them.[10] The idea of car is divided into many classes like mini-car, sport-car, personal car, ranger and city ranger etc. Here we concentrate on the problem to make one novel car as a prototype, which consists maybe of prototypes of:

Engine, seats, interior

Control panel, cabin, corpus and wheels

All these have challenges in relation to electromagnetism[11] and electromedia. Promising engine of today is electrical. Seats are adjustable and warmed by electricity. Interior has ICT-connection etc.

The control of today's and tomorrow's car is radar supported and ICT assembled (compare [12]). Cabin build is based on garbon fiber, nano-surfacing and maybe

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[9] Saarinen, E., *The Search for Form*, Rheinhold Publishing Corporation (New York, 1948)

[10] Periäinen, T., *Metropoleista muotoiluun*, RAK (Helsinki, 1996), 94 -101

[11] Anastopoulos, Ch., 2008, op.cit.

[12] Majurinen, J., Oksala, T., *Junaliikenteen informaatiokeskuksen toimintatapa*, Ratahallintokeskus (Helsinki, 2009)

designed in combination with solar-panel surface. Also windows can gather today solar energy. Corpus with assemblies is equipped with an abundancy of electromedia, too complex to be explained here in detail. As well known, the minimal number of wheels in a car is three by definition.

Car public

The car art public[13] [14] can be found in service stations, among fans in streets and car exhibitions. They decide what is good in car art and they know a lot about cars but about ICT as well.

Car public discusses all over the world in which sense it has been reasonable to change old technology of the car to novel one. This is done in terms of the earlier section. Novel solutions wander in certain order to different types starting from mini-cars and ending to farmer cars and ranger cars. Various car factories get their image through the way they participate in novel exhibitions at competing markets.

Car public has still quite conventional ideas about cars. Car magazines and ICT magazines may change the world/ opinion and finally we may have coherent conception what is a good evaluation theory discussing cars in relation to challenges of today. We face the classical problems of quality[15]:

Technical quality, experienced quality, useability

Ideality, formality, optimality

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[13] Oksala, T., *Philosophical Problems in Architecture*, DATUTOP (Tampere, 1984)

[14] Routila, L - O., *Taidekasvatuksen tieteenala,* (Clarion, 1995)

[15] Niukkanen, I, Oksala, T., *Rakennuksen laatukriteerit*, Rakennushallitus (Helsinki, 1986)

But this happens in novel form.

Technical quality follows the technological imperative and EMe-solutions. Experienced quality and the outlook are changing radically due to ICT and multi-modal analysis and synthesis. The function of car is classical, but great amount of sub-functions are electromediative, as was the case already in gasoline motor (electric gas-distribution).

What are the ideal solution alternative will soon be seen in exhibitions and in internet. It is evident that a new culture of forming cars sees its daylight. The question of optimality is probably open because so many individuals and groups have their interests in the game.

Individual car art in EMe-society

A will to tailor a car of mine and a car looking like me, is a symbol of new feeling of a new era associated to the feeling of movement[16]. EMe-innovation offers a lot of power to change the direction of car development and everybody may participate and contribute to open new views and face new challenges.

There are many car subcultures around as a part of the way of life. Some gather old models of vehicles [17] and drive short periods in summer time with these jewels. Normal layman is of course interested in having still a modern car of our time, which works well, is somewhat beautiful and so durable as possible today in our culture[18]. This gives a good background for a car enthusiast for tomorrow to make radical

[16] Langer, S., *Feeling and Form* (Routledge, 1953)

[17]Periäinen, T., *Metropoleista muotoiluun*, RAK (Helsinki, 1996), 69

[18] Niukkanen, I, Oksala, T., 1986, op.cit.

solutions. Car factories follow sometimes new ideas, but normally they are conservative and pay even patents away from markets.

Individual groups, knowing the classical problems of cars and recent ones concerning hardware, software and content, are most probable pioneers of novel car-art. In this case we will see radical products in markets and also in virtual markets created by various schools, professional schools and design universities.

Collective car art in EMe-socitey

Individual experience and expectation count but all this happens in a dialogue with general ICT-development of analog or digital character[19]. Only few activists may build prototypes in hardware, software and content. This means that EMe-society is also collective and collaborative in its spirit. A lot of problems in a new form are also at hand. They include (ibid):

Ecology and sustainable development (circulation of EMe-car)

Community (EMe-car varying between the car of existence-minimum and show)

Technology (electronic power and ICT in EMe-cars)

Economy (low energy EMe-car)

Culture (EMe-design of e-car)

Civilization (Innovation of sustainable solutions of EMe-car)

Historically relevant car art in EMe-society

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[19] Majurinen, J., Oksala, T., *Junaliikenteen informaatiokeskuksen toimintatapa*, Ratahallintokeskus (Helsinki, 2009)

All societal challenges influence on the design of EMe-car. When thinking the essence of the car we may consider first the engine. Most natural source of power is electricity, because then the kern and the assembly communicate with the same energy. The main problem is to achieve and store energy. This is solved party by solar panels and new super-accumulators. The corpus of a solar-panel car is a new artistic challenge, but at level of applied art. Also LED is changing the image of car of today.

EMe-car is naturally networked not only with new roads, with new lighting and communication technology (EMe-traffic signs). All kind of e-taxation belongs to the map. Inside the car control panels change radically and CPS-graphics opens new possibilities. A car travels in new EMe-milieu[20], which consists of:

Recreation, control, traffic (in e-form)

Services, production, consumtion (in e-form)

Audio-visual and sensory (haptic) tools are available for passengers. The driver uses ICT-control. Routes and terminals get their new image in the world of virtual communication[21].

Service stations have already changed from the time of mechanics to general places self service, but what is still needed are EMe-services in hardware, software and content. As we have described the car production changes, but passengers may also work and make business in a radically new way in an ICT-networked car. Car-use is

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[20] Majurinen, J., Oksala, T., 2009, op. cit

[21] Launis, T., *Tila, aika ja virtuaalisuus, TUT-A* (Tampere, 2006)

changing radically in EMe-society. Electronics is durable and sustainable in comparison to the erosion of mechanical tools. Consumer may start to control his/her rights to avoid over-consumption and over-circulation according to wise consumption policies.

Conclusion

We have shown how the multi-problems in car-design may be taken under artistically relevant human control. This is possible to discuss with focusing the scenarios on the idea of electromediative development "route".

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