

Electric mobility and urban morphology : the inevitable persistence of the patterns?

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One infers that electric mobility, as a way of spatial mobility, could induce changes in the configuration of the transport network, of the energy network, of the public space, of the relationship between scattered urbanization and dense city, in social mobility and, not as directly, in the politics of the energy price and its way of production, in the national energy policy.

Looking back, one wonders whether electrical mobility will originate changes in the mobility paradigm, as the internal combustion engine did; then, looking forward, whether it will benefit or harm the *metapolitan city*, or whether its place is rather outside this one; whether a new paradigm will come out of it, combining individual and collective means of transportation and that articulating the hyper-mobiles with the spatially stagnated and the socially submerged.

Therefore, one has asked several questions regarding this mobility, which go beyond those raised on the *Program For The Electric Mobility In Portugal*. There is the environmental issue of the electrical mobility allegedly allowing the reduction – or relocation – of carbon emissions and of improving air quality. There are the technological and economical issues in what concerns the effects of the increased demand of electric energy upon production and distribution networks, upon the energy price and the energy policy, as well the alleged effect upon the balance of payments regarding, on the one hand, the cost of oil import and, on the other, the energy storage from renewable source, which has been produced but not consumed during the off-peak.

However, we are specially interested in understanding whether electric mobility will be a renewable factor in the offer of both individual and collective transportation and an integration factor of both; and thus whether it will induce an increase in spatial mobility, for both those who already had open access to it, and those who, because of their unemployment status or territorial displacement are away from all networks.

Given this, one is interested in assessing whether and how electrical mobility will have repercussions in dimensioning and shaping the public space (circulation, parking and refilling); and whether the predominant urban morphology (either extensive or diffuse) will persist as such, or will be subject to variation – and, if so, in what way.

Taking into account the weight of transportation costs in the family budget, times of crisis could lead to postponing this form of mobility (due the investment cost and the suspension of governmental incentives), or to reaffirm its need, presenting it as an indispensable tool to maintain the existing paradigm. In extremis, this cost might lead to exclusion from the social space of employment, by making it difficult to have access to the physical space where it is played, as rule of thumb, always elsewhere of the inhabited space itself. This cost might also lead to temporary migration into nearby areas of the space of employment, thus changing territorial occupation temporarily. Furthermore, this cost might even induce new forms of dislocation, brought about by the new offer in transportation services, already making use of electrical mobility. What will the crisis urbanism be like and which urban morphologies will persist?

Keywords: electrical mobility; urban morphology.

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