

# Struggling for existence: A brief history of the beginnings of industrial design in Greece

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## **Introduction: Greek industry in context**

This paper presents a brief account of design in Greece, spanning the history of the independent Greek state from the mid-nineteenth century till today. The text explores the development patterns of industrial design in the peripheral conditions of the Greek society and attempts to unveil some of the reasons behind the weaknesses of this professional field in the country. The study is situated within a framework shaped by economy, industry, and their interconnections with society. It is established on the belief that “a history of industrial design is coextensive with a history of industry. [...] A well-grounded and comprehensive history of industrial design in the Periphery cannot be written unless historians have built up a narrative of industrial development with its ramifications into the domains of business, commerce, science, technology, and above all everyday life of society.”<sup>1</sup> Therefore, it is necessary to situate industrial design in the context of industrial development and provide explanations of the underlying social, cultural and economic dynamics. Thus, it will then be possible to start building up a history of design in transitional countries of the European periphery, which is undoubtedly “little understood and appreciated in the West.”<sup>2</sup>

Greece belongs to Europe geographically, politically, and culturally, but has followed a trajectory of political and cultural development which is radically different than that of the advanced Western European states.<sup>3</sup> The assimilation of Greece in the international economic system has been particularly atypical.<sup>4</sup> Almost four centuries of Ottoman domination have given the country's institutions a very different structure than that of the West. Greece didn't experience the great socio-political changes which, after the feudal crisis of the 14<sup>th</sup> and 15<sup>th</sup> century, completely transformed 16<sup>th</sup> century western Europe, and led to the development of industrial capitalism and the respective civil institutions in the political and cultural sphere (political liberalism, enlightenment, etc.). In the 16<sup>th</sup> century, when the western economy and trade capitalism almost destroyed the disintegrating feudal system, Greece was still a miserable province of a huge empire. Later, the development of industrial capitalism and of the international capitalist market assimilated the declining Ottoman Empire and its Greek provinces as simple agrarian attachments of the dynamic western centres.<sup>5</sup>

Greece became an independent state in 1830. Some proto-industrial, pre-capitalist activities had taken place before that date, but they were cut short by the Industrial Revolution, which shattered pre-industrial technologies and ways of labour organization all over the world. The initial dynamism of local production, especially in the areas of textiles and ship building, failed to develop and lead to a capitalist mode of industrial production.<sup>6</sup> The country did not move from an established handicraft/light

industry mode of production to a purely industrial one, but an industrial sector had to be created practically from scratch.<sup>7</sup> After independence, Greece remained an agrarian country, very sparsely populated (17 inhabitants per square kilometer in 1839), and it was still too early to talk about industrialization, or even about early industrialization.<sup>8</sup> The country was in a pre-industrial, pre-banking, and even pre-property state.<sup>9</sup> Despite the adverse conditions of the times, some efforts were undertaken for the creation of local industry, such as the 1837 Law for the Empowerment of Industry, the first of its kind in the Balkans. Applications of this law were however negligible, so the measure was insufficient for the Greek industry to take off.<sup>10</sup> Another event indicative of the efforts to organize the country according to European standards and open up the Greek economy to the international market was the participation of the country in the Great Exhibition of London in 1851. Although the Greek presence was relatively poor, at least compared to the industrial innovations presented in Crystal Palace by the advanced European countries, it provided the opportunity for a direct contact of the Greeks with international technical achievements. It also created the preconditions for reflection and discussion regarding the image which Greece was projecting, or struggling to project, abroad.<sup>11</sup>

Throughout its short history, Greek economy has generally favored the development of agriculture and of the service sector.<sup>12</sup> An anti-industrial ideology has permeated the mentality of the people in power, as well as that of the general public.<sup>13</sup> The lack of capital and specialized workforce are often cited as two main obstacles in the development of industry.<sup>14</sup> As far as capital is concerned, although huge amounts of money were brought into the country by the wealthy Greeks of the Diaspora throughout the 19<sup>th</sup> and early 20<sup>th</sup> centuries, these were directed neither to agriculture nor to industry, but were primarily invested away from the production sphere in safer and more lucrative domains, such as land acquisition and banking.<sup>15</sup> On the other hand, although there was a serious lack of workforce, both specialized and unspecialized, farmers preferred to abandon their land and immigrate to the United States rather than enter the world of industrial, waged labor.<sup>16</sup> This was combined with the generalized desire of the agrarian population to settle in the cities and “become bourgeois”.<sup>17</sup> Generally speaking, these and other factors perpetuated the existence of pre-capitalist modes of production and obstructed the birth of industry.<sup>18</sup> As a result, the country’s modernisation was held back and Greece became integrated into the new world system of industrial capitalism in a very dependent and problematic fashion.<sup>19</sup>

### **The inter-war promise (1922-1940)**

The 1830-1880 period of underdevelopment in a pre-capitalist context was followed by a transitional period from 1880 to 1922. During this period, the Greek economy was gradually transformed through a generalized capitalist penetration. This was realised primarily by the development of infrastructure (especially roads, railroads, and ports) supported by foreign loans, as well as by an attempt to rationalize the institutional and educational contexts. These measures helped to create a large internal market and gave a

significant thrust to local industry.<sup>20</sup> In fact, it doesn't make sense to talk about industrial design in Greece before the inter-war period. From 1922 to 1940, the capitalist methods of production became consolidated in the Greek society, industrialization acquired though a different form than that of western European societies and remained problematic. The relative industrial developments of the inter-war period resulted in the emergence of certain design activities, which were however limited in scope. At the same time, due to the international financial crisis, Greece was directed to a strategy of withdrawal and protectionism. The influx of one and a half million refugees from Minor Asia, following the war of 1922 with Turkey, created a significant workforce as well as a potentially important market for consumer products.<sup>21</sup> Therefore, satisfactory conditions were generated for local development in the direction of self-sufficiency and reduction of dependence from foreign countries. In this period, the Greek industry actually made substantial progress. But, despite the favorable prospects, the Greek industry could not face the new challenges posed by the international as well as the local conjuncture.<sup>22</sup> This has been attributed to two fundamental and interrelated factors. On the one hand, most governments were convinced that the country's development would come from the agrarian and the commercial sector, rather than from industry. The banking system itself was extremely unfavorable to high-risk industrial investments.<sup>23</sup> This view was closely related to the aim of preserving social stability in favor of the dominant (bourgeois) upper and middle classes. It was feared that redirection of the whole system towards industrial development would inevitably cause significant social tensions and perhaps collapse of the system itself. On the other hand, the foreign powers encouraged the anti-industrial views of the Greek governments, because such views served well their own purposes: servicing of the huge public debt of Greece to foreign creditors, preservation and increase of Greek markets for imported products, as well as conservation of the general dependence of the Greek state and society.<sup>24</sup> As a result, the local industry remained underdeveloped and market demands were met to a great extent by imported goods. The local small and medium size industry was characterized by extreme segmentation of production: small and very small companies, which were primarily family-run, generated products of low added value and limited competitiveness. The production of Greek firms was mainly based on copying foreign designs, in order to suppress cost. For example, there is ample evidence that copying or adapting foreign designs constituted the standard practice in the furniture sector, which was one of the most active in the inter-war period.<sup>25</sup> In the same period, there are numerous indications of growing design awareness among groups of experts as well as among the wider public.<sup>26</sup> Car advertisements of the mid thirties refer to "perfection and elegance of manufacture [...] comfort and pleasure of use", and imply increased sensitization of the public regarding aesthetic, ergonomic, and other design features of products.<sup>27</sup> Various companies employ promotion techniques such as extensive, illustrated product catalogues with detailed specifications, a practice which indicates a relatively sophisticated public (figure 1).<sup>28</sup>

Despite the existence of a certain level of design awareness, the latter remains ambiguous due to a crucial factor: the ideology of “Greekness” and of the “return to the roots”. Most discussions about a local design culture and its potential development referred to an ideal of craft production, supposedly expressing the spirit of the people and of the land. The purity and quality of the pre-industrial past was often equated with traditional, vernacular design, which could then feed into factory production. This approach was problematic and generated a fundamental contradiction, as craft production was the result of pre-capitalist modes of production.<sup>29</sup> The methods of mass production employed in Greek factories were in fact hybrid: either copying and mass producing foreign designs, or producing art and craft work in large quantities (figure 2).<sup>30</sup> In fact, despite the promising context, there are only traces of local industrial design activities during that period, which brings us to another question: who could actually be the agents of such activities? Education is considered to be a spearhead for development,<sup>31</sup> often preceding and triggering the flourishing of a professional field. In Greece, given that industry was a low priority for the state, the respective educational issues were also neglected. The National Technical University of Athens, founded in the mid-19<sup>th</sup> century, had been originally oriented towards the various “applied” arts, which were so much in need in the newly-founded state.<sup>32</sup> However this institution gradually developed a preference to a higher, more scientific profile. Also, within the National Technical University of Athens, a conflict was generated and developed between the technically oriented sector (engineers of various specialisations) and the artistically oriented one (painters and sculptors). Resulting from this long-lasting tension, the artistic sector finally became fully autonomous in 1929, under the name “School of Fine Arts of Athens”.<sup>33</sup> So, in the interwar period, the technical and artistic higher education constituted an intensely polarized structure, which led to a similarly structured situation in the job market. This intermediate space of design received little attention and enjoyed very low social and professional status. This area was catered for by a multitude of small, lower-level technical, artistic and vocational schools, private or public.<sup>34</sup> In any case, all industrial and design-related activities came to a brutal end with the beginning of the Second World War and the ensuing civil war, and the country was left in ruins.

### **The post-war outburst (1950s and 1960s)**

Following the terrible decade of the Second World War, foreign occupation, and civil war, which inflicted deep and lasting material and psychological wounds, the 1950s and early 1960s was for Greece a time of reconstruction. The political problem appeared solved, as Greece’s destiny was now tied with the western capitalist bloc. Foreign dependency continued but with a changed orientation, as the United States supplanted the former Great Powers of Europe as Greece’s patron. Under the umbrella of the Truman Doctrine and the Marshall Plan, millions of dollars poured into Greece. The reconstruction, financed by foreign capital, was realized at a quick pace and the Greek economy soon regained its pre-war dynamism. The period witnessed an economic boom of sorts, which could be expressed as growth but not development. Although the standard of living increased substantially and the average per capita income went from

\$112 in 1951 to \$500 in 1964, there were signs of fragility in the economy. The nation's capital Athens, and to a lesser extent the city of Thessaloniki, experienced a rapid and quantitatively significant bout of industrial growth, which grew at a rate of 10 per cent per year, the highest in Europe at the time. Foreign investment in industry fuelled the development of capital-intensive industries and, as a result, in the early 1960s exports of manufactured goods exceeded agricultural exports for the first time in Greek history.<sup>35</sup> Following negotiations with the European Economic Community, in July 1961 a treaty was signed by which Greece achieved associate status beginning in November 1962 and the promise of full membership in 1984.<sup>36</sup> In the 1950s and 1960s, the area of family-based small and medium industries showed an unprecedented progress. To a great extent, this resulted from the exploitation of surplus, low-cost working hours by family members.<sup>37</sup> During the same period, the society experienced an intense process of urbanization and change of lifestyles.<sup>38</sup> In the late fifties and early sixties, industrial growth, in conjunction with the realization of the inadequacies of local production, gave rise to design consciousness and triggered relevant actions by groups of art theorists, architects, industrialists, and other professionals.

The design discourse was pioneered by Panayotis Michelis, architect and theorist of art and architecture, who gave two lectures at the city of Thessaloniki in 1958 and later published them in 1959 in the form of a seminal paper entitled "Industrial Aesthetics and Abstract Art", in the avant-garde magazine *Zygos*. In this article, which included rich illustration, he discussed the issue of industrial production from an aesthetic point of view.<sup>39</sup> In 1957, 1961, and 1962, the Modern Home Exhibition took place in Athens and brought the public in contact with recent developments in construction, architecture, and design.<sup>40</sup> Also in the early sixties, Themistoclis Varangis, third generation of a family of cabinet makers and entrepreneurs, coordinated a group of people of various professions to create the Greek Society of Industrial Morphology and the Athens Design Centre (ADC). Although the ADC was a purely private initiative, it was modelled after public institutions which were operating abroad as national agencies for the promotion of industrial design, especially the British Council of Industrial Design. The ADC was basically a commercial undertaking, whose aim was to educate producers as well as consumers on what constitutes "good design". The people who conceived of the ADC had hoped that its operation could boost product sales and empower Greek firms in the new environment of the European Common Market. Despite high expectations, the ADC was unsuccessful and short-lived. Its private nature and the "commercial" stigma it was bearing prevented it from attracting a wider range of supporters, especially from the public sector and the academia. In general, it was an over-ambitious and in a sense heroic venture, which tried to imitate too closely its international counterparts and finally played a marginal role in the Greek design scene.<sup>41</sup> The first post-war decades also witnessed the emergence of worthwhile examples of local design practice, particularly by the IZOLA electrical goods firm (figure 3), by various furniture manufacturers, by the Kerameikos potteries (figure 4), and by many others.<sup>42</sup> In the educational field, substantial and often pioneering work is carried

out during the second half of the sixties at the University of Thessaloniki, School of Architecture, Laboratory of Design and Industrial Aesthetics, under Professor Dimitris Fatouros (figure 5).<sup>43</sup> However, the political turmoil which culminated to the junta of the colonels in 1967 led the country into another period of isolation and backwardness.<sup>44</sup>

### **Steps back and forth (1970s to 1990s)**

The last decades of the twentieth century further reinforced the inadequacies of Greek industry and underpinned the need for re-orientation.<sup>45</sup> The overall level of standards of living, as expressed by the GDP per capita, has been improving radically<sup>46</sup>, reaching 11,240 USD (1995 prices) in the late nineties.<sup>47</sup> Despite the apparent quantitative progress, the Greek economy retains its non-productive orientation and its emphasis on the service sector.<sup>48</sup> It is generally acknowledged that the Greek design domain in general is in a state of chronic underdevelopment, and produces very poor results compared to most European countries.<sup>49</sup> Generally speaking, the observation that “large capitalist companies which employ waged workers only constitute a small island within a sea of small firms based on the family” still holds today.<sup>50</sup> The Greek underdevelopment may be considered as a special type of articulation and interaction between two different modes of production: the capitalist mode of heavy industry, and the simple, trade production, still dominant in agriculture and “small” or “light” industry.<sup>51</sup> In western society, the simple production for trade has been either destroyed by the emergence of the capitalist mode, or it has been assimilated in a “positively complementary” way. This has been achieved through the modernization and specialization of “small” industries. On the contrary, in Greece, the articulation of non-capitalist with capitalist modes of production has been “negative”. “Small” industry neither disappeared nor developed, but it has remained stagnant and technologically underdeveloped.<sup>52</sup> A multitude of small firms exists, especially in traditional sectors such as clothing, footwear, leather, and furniture. Such firms are characterized by low productivity, low specialization, inability to grow, and they are actually struggling for their existence.<sup>53</sup> Research has revealed that small and medium size firms admit that the quality of Industrial Design of their products is very poor. They stress the lack of design specialists in the Greek market, as well as the investment demands of good Industrial Design which are too high for them.<sup>54</sup>

State support to Industrial Design has been non-existent until the late seventies. Then, design-related activities in Greece became relatively developed and reached a peak during the late eighties and the early nineties, thanks to the Hellenic Product Design Centre, which was founded in 1979 and operated under the auspices of the Hellenic Organization of Small and Medium-Sized Industries (EOMMEX), mainly with European Union (then European Community) funds.<sup>55</sup> As the competitiveness of Greek products is generally based on low prices rather than quality<sup>56</sup>, the aim of the Hellenic Product Design Centre was to raise design consciousness among “small” industries and provide a link between designers and such industries.<sup>57</sup> However, State support was discontinued and the Hellenic Product Design Centre was shut down in 1993.<sup>58</sup> In the

early nineties, an extensive survey of local industrial design by the Hellenic Product Design Centre revealed that the necessary quality leap had not been achieved. Most of the designs included in the survey were in fact student projects or one-offs which remained at prototype level and never reached mass production.<sup>59</sup>

The particularities of the social construction of the Greek educational system also have a special bearing on the development patterns of industrial design in the country. The primarily commercial character of Greek society, in conjunction with the low level of manufacturing and industrial activities, has led to limited demand for technology or science specialists. The dominant feature of the Greek educational system since its inception has been the orientation towards classical studies, accompanied by the undervaluing of science and technology. The development of the educational system generally reflects this orientation and serves the needs of the anti-productive structure of the society. University education in applied arts and sciences was, and still remains, insignificant.<sup>60</sup> Industrial/product design, together with other design disciplines, is under-represented in the Greek academia. Design is taught as a standard or elective course in some engineering and architectural departments, or in occasional seminars by various private or public institutions. Autonomous product design departments exist only in private design colleges, which, however, do not have higher education status, according to the Greek law.<sup>61</sup> The fragmentation of design activities and discourse in the country may be attributed, to a great extent, to the inadequacy of design education in Greece. Nowadays in Greece Industrial Design does not have a distinct professional identity, and products are often designed by architects, engineers, inventors, craftsmen, decorators, or even managers themselves.<sup>62</sup> Architects in particular have contributed a lot to the development of design in the country but, on the other hand, the dependence of design from architecture has stifled the potential of the design sector to develop as an autonomous discipline.<sup>63</sup> Public awareness of design is limited and design is often equated with styling.<sup>64</sup> The terminology problem further reflects the low level of design awareness in the country and the weakness of the relevant discourse.<sup>65</sup>

## **Conclusion**

I endorse the view that [in Greece] “it is very clear that we have borrowed a design ideology primarily produced abroad [...] and here we don’t have the techno structure, [...] the structure of tools, of people, of knowledge, etc.”<sup>66</sup> Given the country’s background and the rapidly changing social and cultural milieu of globalization, there isn’t much evidence to support an optimistic view for Industrial Design in Greece. The viability of small, underdeveloped, family-based firms is more threatened than ever, and a substantial, quality leap is necessary. In the first years of the 21<sup>st</sup> century, the organization of the Athens 2004 Olympic Games generated a major mobilization of the public and private sector and should or could have caused an orgasm of design activities; unfortunately, it failed to do so. In the same period though, some new design-related courses have been created in public and private institutions and a number of

design competitions have been organized by private companies. Such steps are of course not enough; still, they are positive signs of change. There are also various indications that the design-related professional and academic communities are gradually becoming more mature. Furthermore, a substantial number of young Greeks study design abroad, on either undergraduate or postgraduate level. Potentially, such groups of people bear the seeds of a dynamic development of the local design scene in the near future. Industrial design in Greece has certainly lost the opportunity to play either a developmental role, or a market-oriented competitive role. In the near future, design might perhaps play a different role, as a tool for expressing and negotiating cultural identities in the fast changing Greek society, which has been transformed from a very homogeneous one to a multicultural one, in the last two decades or so. There is perhaps a crucial place for design in the fields of education, of public space, of cultural production, and of certain service industries (such as tourism). It remains to be seen whether the new generations of designers will face these challenges with success.

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<sup>1</sup> Gui Bonsiepe, *Developing Countries: Awareness of Design and the Peripheral Condition*, in: C. Pravano (ed.) *History of Industrial Design: 1919-1990 The Dominion of Design*, (Milano: Electa, 1991), 2.

<sup>2</sup> Guy Julier, "Re-drawing the Geography of European Design: The Case of Transitional Countries", paper presented at the 2<sup>nd</sup> European Academy of Design Conference, "Contextual design – Design in Context", Stockholm, April 1997, <http://www.svid.se/ead/ead-papers.htm> (Accessed 25/2/2004)

<sup>3</sup> George Dertilis, *Social Transformation and Military Intervention 1880-1909*, (Athens: Exantas, 1977) [in Greek], especially 103-105.

<sup>4</sup> Constantine Tsoukalas, *Dependence and Reproduction: The Social Role of Educational Mechanisms in Greece (1830-1922)*, (Athens: Themelio, 1992) [in Greek], 18.

<sup>5</sup> Nikolaos Mouzelis, *Modern Greece: Facets of Underdevelopment*, (Athens: Exantas, 1978) [in Greek], 313, (English edition: London: MacMillan, 1978).

<sup>6</sup> Mouzelis, 29.

<sup>7</sup> Christina Agriantoni, *The Beginnings of Industrialization in Greece during the 19th Century*, (Athens: Educational and Cultural Foundation of the Commercial Bank of Greece, 1986) [in Greek], 143.

<sup>8</sup> Agriantoni, 15.

<sup>9</sup> Vassilis Panayotopoulos, "Industrial Revolution and Greece, 1832-1871", in *Modernisation and Industrial Revolution in the Balkans in the 19<sup>th</sup> Century*, (Athens: Themelio, 1980) [in Greek], 233, and: Aliko Vaxevanoglou, *The Social Reception of Innovation: The Example of Electrification in Inter-war Greece*, (Athens: Neohellenic Research Institute/National Hellenic Research Foundation: 1996) [In Greek with French summary], 71.

<sup>10</sup> Georgios Anastassopoulos, *A History of Greek Industry 1840-1940*, vol. 1 (1840-1884) (Athens: Greek Publication Company, 1947), 47-53 [in Greek] and Panayotopoulos, 216.

<sup>11</sup> Antonia Mertyri, *The Artistic Education of the Youth in Greece (1863-1945)*, (Athens: Neohellenic Research Institute/National Hellenic Research Foundation, 2000), 103. For a design-centred account of this participation, see: Artemis Yagou, "Facing the West: Greece in the Great Exhibition of 1851", *Design Issues*, vol. 19, issue 4, Autumn 2003, 82-90.

<sup>12</sup> Christos Hadziiossif, *The Elderly Moon: Industry in the Greek Economy, 1830-1940*, (Athens: Themelio, 1993) [in Greek], 166 and 339.

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- <sup>13</sup> Hadziiosif, 217.
- <sup>14</sup> Agriantoni, 144.
- <sup>15</sup> Mouzelis, 35-36.
- <sup>16</sup> Agriantoni, 289-294.
- <sup>17</sup> Tsoukalas, 136-146.
- <sup>18</sup> Tsoukalas, 227-266.
- <sup>19</sup> George Dertilis, *Greek Economy (1830-1910) and Industrial Revolution*, (Athens: Sakkoulas, 1984) [In Greek], especially 4-18. See also: György Ranki, *The Economies of the European Periphery: 19<sup>th</sup>-20<sup>th</sup> Century*, (Hermoupolis (Syros island): Scientific and Educational Foundation of Cyclades, 1986) [in Greek].
- <sup>20</sup> Mouzelis, 34-46.
- <sup>21</sup> Alkis Rigos, *The 2<sup>nd</sup> Hellenic Democracy 1924-1935 – Social Dimensions of the Political Scene*, (Athens: Themelio, 1999) [In Greek], 29-31.
- <sup>22</sup> Margarita Dritsa, *Industry and Banks in Inter-war Greece*, (Athens: Cultural Foundation of the National Bank of Greece, 1990) [In Greek], 439-441.
- <sup>23</sup> Hadziiosif, 245-264 and 401-405.
- <sup>24</sup> Hadziiosif, 286.
- <sup>25</sup> Numerous examples in: George Parmenidis, and Efrossini Roupa, *Bourgeois Furniture in Greece, 1830-1940: A Century of Construction of Design Rules*, (Athens: National Technical University of Athens Press, 2004) [in Greek].
- <sup>26</sup> The emergence of design awareness can be deduced by various comments by the Boards of Directors of inter-war companies, “Industrial Credit” section of the Historical Archives of the National Bank of Greece in Athens.
- <sup>27</sup> Dimitra Vassileiadou, Themistoclis P. Roukis, and Sakis Spyridis, *The Beginnings of Consumer Society in Inter-war Greece*, (unpublished seminar paper), (Rethymno (Crete): University of Crete, 2001) [In Greek], 69.
- <sup>28</sup> See for example illustrated catalogues by the firms: Antonakopoulos Bros (ceramic tiles and bathroom equipment, Athens, mid 1930s), Thermis (steel furniture, Athens, 1937), and Kosmos (metalware, Thessaloniki, 1938); microfiches no 2194, 2229, and 2231 respectively, “Industrial Credit” section of the Historical Archives of the National Bank of Greece.
- <sup>29</sup> Hadziiosif, 102 and 356-357.
- <sup>30</sup> Abundant relevant documentation can be found in the “Industrial Credit” section of the Historical Archives of the National Bank of Greece.
- <sup>31</sup> Bonsiepe, 8.
- <sup>32</sup> Hadziiosif, 270.
- <sup>33</sup> Mertysi, 261-275.
- <sup>34</sup> *Great Hellenic Encyclopaedia*, vol 10 (Greece), chapter “Schools of Arts and Crafts” written by K. Papazahariou, (Athens: Pyrsos, 1934) [in Greek], 328-331. Also: Hadziiosif, 89.
- <sup>35</sup> Thomas W. Gallant, *Modern Greece*, (London: Arnold, 2001), 178-192. Also: Mouzelis, 50.
- <sup>36</sup> Gallant, 192-193.
- <sup>37</sup> Giorgos Stathakis, “The Unexpected Economic Development in the 1950s and 1960s: Athens as a Developmental Model”, in: *1949-1967, The Explosive Twenty Years*, (Proceedings of Scientific Symposium), (Athens: Society of Studies/Moraitis School, 2002), [In Greek], 54-57.
- <sup>38</sup> Gallant, 178-196. Also: Marina Emmanouil, *Post-war Greek Advertising and the Influence from America, 1955-1975*, MA History of Design, Royal College of Art, 2002-2004.
- <sup>39</sup> Panayotis Michelis, “Industrial Aesthetics and Abstract Art”, Part A, *Zygos*, no 38, January 1959, 29-36, and Part B, *Zygos*, no 3, February 1959, 27-51 [in Greek].

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- <sup>40</sup> Yorgos Tzirtzilakis, "Industrial Design and Greece. Divergent Lives?" in: *Design and Art in Greece*, vol. 20 (1989), 112-118 [in Greek and English].
- <sup>41</sup> Artemis Yagou, "Unwanted Innovation: The Athens Design Centre (1961-1963)", *Journal of Design History* (to appear).
- <sup>42</sup> In the fifties and sixties, the artistic and technical (engineering) specialist press constitutes a good showcase for the production of local firms, particularly the publications *Zygos*, *Architektoniki*, and *Architektonika Themata*.
- <sup>43</sup> Examples of student work at the Laboratory of Design and Industrial Aesthetics (under Professor D. Fatouros), Aristotle University of Thessaloniki, are published in *Architektonika Themata*, issue 2 (1968), 250-252, and issue 4 (1970), 219-221.
- <sup>44</sup> Gallant, 194-196; Chris M. Woodhouse, *Modern Greece – A Short History*, (London: Faber and Faber, 1991, first edition 1968), 265-294.
- <sup>45</sup> Dimitris Kazis, *European Unification and New Products*, (Athens: Institute of Financial and Industrial Research, 1990) [in Greek], 1-2.
- <sup>46</sup> Mouzelis, 279.
- <sup>47</sup> Konstantinos Papadimitriou, "Convergence: The common vision in Greece and Portugal", *Kathimerini*, 3/5/2002, 20/44 [in Greek].
- <sup>48</sup> Tsoukalas, 264-265.
- <sup>49</sup> See for example: Panayotis Vokotopoulos, Eleni Mitropoulou, and Yorgos Tzirtzilakis, *Directory of Engineers Involved in Industrial Design*, (Athens: Technical Chamber of Greece, 1992), introduction [in Greek]. Also: Donatella Adamou, "Greek Fashion Industry: Local Talent and the Undaring and "Demodée" Strategy", in: *Epilogi, Monthly Economic Review*, May 2001, 54-59 [in Greek].
- <sup>50</sup> Mouzelis, 49.
- <sup>51</sup> Mouzelis, 104.
- <sup>52</sup> Mouzelis, 197.
- <sup>53</sup> Mouzelis, 278-279.
- <sup>54</sup> Kazis, 30. Results from a more recent survey appear in: Artemis Yagou and Vassiliki Tsironi, "Desperately Seeking Common Ground: The Emergence of Design Management in Greece", *Common Ground – Proceedings of the Design Research Society International Conference*, London, 5-7 September 2002, David Durling and John Shackleton (eds), Stoke on Trent, UK, Staffordshire University Press, 1248-1255.
- <sup>55</sup> Jens Bernsen and Christos Karabelas, *Design: An Introduction to Industrial Design*, (Athens: Hellenic Product Design Center/EOMMEX, 1989) [in Greek]
- <sup>56</sup> Vokotopoulos, Mitropoulou, and Tzirtzilakis, 9.
- <sup>57</sup> Vokotopoulos, Mitropoulou, and Tzirtzilakis, 21-22.
- <sup>58</sup> Private communication with Christos Karabelas and George Adamopoulos of EOMMEX, 2002.
- <sup>59</sup> Christos Karabelas, *Greek Product Designers*, (Athens: Hellenic Product Design Center/EOMMEX, 1993) [in Greek and English] See also: Lambros S. Skartsis and George Avramidis, *Made in Greece – The Greek Car, Vehicle, and Airplane*, (Patra: Typorama, 2004) [in Greek]. This is a good survey of attempts to design and manufacture various types of vehicles – with limited success.
- <sup>60</sup> Tsoukalas, numerous related references, especially 25, 385, 442, 530-531, and 563.
- <sup>61</sup> Vokotopoulos, Mitropoulou, and Tzirtzilakis, 23-24.
- <sup>62</sup> Karabelas.
- <sup>63</sup> Private communication with George Parmenidis, architect, designer, and professor at the School of Architecture, National Technical University of Athens.

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<sup>64</sup> Vokotopoulos, Mitropoulou, and Tzirtzilakis, 9.

<sup>65</sup> Artemis Yagou, "What is Design? The Issue of Greek Terminology in the Area of Industrial Design", *3<sup>rd</sup> Conference of the Hellenic Society for Terminology: "Greek Language and Terminology"* (Conference Proceedings), Athens, 1-3 November 2001, 129-137 [in Greek with English summary], 134.

<sup>66</sup> View expressed by George Parmenidis, quoted in: Vassiliki Tsironi, *Design Management: A Promising Combination*, unpublished research project (Athens: AKTO art and design, 2002) [in Greek], 107.