

Design research in the periphery: A review of the foundations and development characteristics of industrial design research in Turkey *

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Abstract:

The evolution of design research can be understood as a process conditioned by the increasing knowledge requirements of the new economy. Since design is increasingly recognized as a competitive factor of strategic nature, it is expected and natural that design research has found a fertile ground in the central countries of the global economy as they evolve into being knowledge economies for the last decades.

Rather unexpectedly however, design research also exists in the periphery of the global economy where the design knowledge requirements are considered to be weak and unsophisticated. By looking specifically into the state of industrial design research in Turkey as a Newly Industrialized Country, the article provides insight into the differentiated reality of the development of design research in peripheral countries. The article reviews the history of industrial design research in Turkey and tries to reveal its problems and potentials in relation to national and international dynamics in a wider context.

Keywords: *Design research, newly industrialized countries, industrial design research, industrial design education, Turkey.*

Introduction: The ground of design research

The emergence and the increasing importance of design research perfectly make sense in the context of the industrialized market economies that have been evolving into being knowledge economies for the last decades. Nevertheless, the emergence of design research phenomenon has not been exclusively limited to these highly advanced market economies that constitute the core of the global economic system. For the last two decades we have also witnessed the evidences of design research activities originating from the peripheral countries, appearing as increasing number of research papers, projects or articles in international design journals and conferences. Then, a number of critical questions arise: how can we explain this rather “early emergence of design research” in the periphery of the global economy where the design knowledge requirements are considered

to be weaker and unsophisticated? What are the particularities of the existence of design research in the periphery of the design world? This article tries to seek out answers to these questions by focusing on the specific case of industrial design research in Turkey.

A comprehensive history of design research from the early beginnings in the 1960s dominated by the Design Methods movement to its current state ranging from history to robotics, and from software design to design management is beyond the scope of this paper. Nevertheless, before looking into the state of design research in Turkey, the historical evolution of design research in the central countries such as the USA and the UK must be briefly outlined to be able answer the following basic questions: What is design research? Who needs or demands design research? Who conducts design research? And, of course, who pays for, or finances design research?

Design research is basically about producing knowledge for, about and through design. According to Cross (1999), the aim of design research is the development, articulation and communication of design knowledge. As Margolin (2000) describes, design research has two main functions; one is to increase our knowledge of how to make products and what, in fact, might be made; and the other is to improve our understanding of how products function as part of the social world.

It must be stated that the historical development of design research has been in line with the scientification of professional design disciplines. Therefore, design research found its natural base initially within the academia, as being primarily generated in the fields of engineering design and architecture in the 60s and 70s (see Archer, 1998; Cross, 2002; Bayazit, 2004). Later, it spread to other design disciplines such as industrial and graphic design in the 1980s and 90s in parallel to the rising importance of these two disciplines in an increasingly competitive economic environment.

At the beginning, design research was rather isolated and marginal, even within the academic and professional design circles. Nevertheless, it eventually set up very vital links to the industry and the design practice for which it aimed to produce new knowledge. In countries such as the USA and the UK, the increasing needs of the design practice and the industry for knowledge, led design education establishments to start university based advanced programs (Owen, 1991; Buchanan, 2001). The number of postgraduate design programs with stronger knowledge input has increased significantly in those countries since the early 1990s. Also in the same period, doctoral education, which is the training of professional researchers, has entered into the agenda of design disciplines as a vital tool of producing new design knowledge.

Although design research was originally started in universities, its development has not been limited to the academic life in the central countries. For the last decade, design research in the USA, the UK and the EU has been mainly facilitated and supported by the competitive interests of the industry and the design profession in those economies. Today, design research gets recognition, and is becoming standard practice for the design world, academic and professional alike, as it is increasingly related to the knowledge-based value creation for global competition.

Following this short review of the evolution of design research in the center, if we return to the questions posed in the beginning of this section, their answers appear to be: What is design research? - Systematic creation of purposeful design knowledge; who needs it? – The industry, the profession and the public; who does it? - Design researchers academic or professional and who pays for it? – The industry and the public.

Answers to these four basic questions for peripheral countries can help explaining the peculiar existence of design research in the periphery. In such an attempt, we will focus on the state of design research in Turkey as a Newly Industrialized Country (NIC) (1) with a particular emphasis on the field of industrial design. Having started PhD education in industrial design earlier than many central countries such as the US (Er and Bayazit, 1999), Turkey constitutes a rather fertile ground to study this peculiar phenomenon.

Historical review of design research in Turkey

A short historical review is rather necessary to frame the major characteristics of design research in Turkey in relation to the other interacting dynamics in a wider context. The beginnings of design research in Turkey go back to the postgraduate studies in architectural design in the late 60s and 70s at Istanbul Technical University (ITU) (Er and Bayazit, 1999; Bayazit, 2004; 2006). Its origins appear to have been influenced by the Design Methods movement in the UK. In the 70s, research activities in architectural design education appeared at some other Turkish universities such as the Middle East Technical University (METU) and Karadeniz Technical University (KTU). The peak point of the research events in architectural design in this period was the International Conference at ITU in 1978 (Architectural Design: Interrelations among Education, Research and Practice). Early 1980s witnessed another major, yet a national design conference at ITU in 1982 trying to cover all the design disciplines from urban design to furniture design (Bayazit, 2006).

However, in the rest of the 80s, the rapid expansion and diversification of postgraduate education in architecture in Turkey and the declining influence of Design Methods movement in general, led to the fragmentation of an already small design research community with an architectural design orientation. Later, some specific subjects such as computer-aided design and construction management dominated the late 80s and the early 90s in architectural research. Although research activities in architectural design have continued within their own specific frameworks, their fragmentation and isolation from each other and from other design disciplines have continued, the International Design Research Conference, Descriptive Models of Design at ITU in 1996 being the only exception.

The emergence of industrial design research

The entry of industrial design into the Turkish design research scene did not take place until the mid 90s when two major conferences were organized by METU and ITU respectively. The first international symposium on industrial design was organized by the METU Department of Industrial Design in Ankara in 1994 under the title of “Design, Industry and Turkey: International Product Design Symposium”. Two years later, the newly established Department of Industrial Product Design at ITU organized the 2nd National Design Congress under the title of “Globalization in Design” in Istanbul in 1996.

This delayed appearance of industrial design in the Turkish academic research scene is partly a result of the limited number of researchers in this young discipline. Relying on the data provided by industrial design departments of the time, Nesnel (Er et al., 1998), a publication of Industrial Designers' Society of Turkey (ETMK) devoted to the industrial design education in Turkey, cited the total number of the members of staff with PhDs or Proficiency in Art degrees in those departments at Mimar Sinan University, METU, Marmara University and ITU as only 17 in the late 1990s.

Peculiar nature of doctoral education in industrial design in Turkey

As in many other peripheral countries, the introduction of industrial design into Turkey was associated with a view based on the "Modernist Development Paradigm" (Bonsiepe, 1991), and the industrial design education was imported from the countries such as the USA and Germany (Flores, 2000; Er et al., 2003). Long before the new product design needs of the Turkish industry materialized, industrial design schools had been planned in order to meet the future demand which was expected to emerge as a result of the import substituting industrialization strategies of the 60s and 70s. Thus, in Turkey, industrial design first emerged at educational level in the early 1970s, prior to its actual practice (Erzurumluoğlu-Er, 1991; Er, 1994). The emergence of industrial design education prior to its actual practice in industry is in fact a shared experience across peripheral countries whereas the establishment of formal education in the field of industrial design such as the US and the UK has been a response to the emerging design needs of the national industries in these countries in the early 20th Century (Owen, 1991; Er, 2001).

The first academic institution with an industrial design program in Turkey was the State Academy of Fine Arts (currently Mimar Sinan Fine Arts University) in Istanbul. Industrial design education was started in the Academy in the early 1970s. As expected, in the tradition of an art academy, research was naturally not a priority issue. Nevertheless, a primitive form of "research" activity can be mentioned to have existed in relation to the promotion system of the Academy where, following a long period of teaching assistantship, a proficiency dissertation, sometimes supported by the exhibition of artifacts or projects used to be presented to a jury consisting of senior faculty members (Er and Bayazit, 1999). Proficiency dissertations were instrumental to exhibit that candidates had the necessary informative background in their specialization field, rather than to display that they had the necessary skills and knowledge in research, and could contribute to knowledge in that field. Ironically, the Fine Arts Academy was to become the first institution to start MSc and PhD programs in industrial design, which were supposed to be research oriented (Er, 1998; Er and Bayazit, 1999).

Despite the existence of the tradition of proficiency dissertations at the State Academy of Fine Arts, or a few independent studies undertaken at other universities, the official beginning of design research in industrial design can be dated to the same time period with the establishment of masters and doctoral degree programs, which was a result of the major restructuring of the Turkish higher education system in 1982. The 1982 restructuring transformed the Turkish university system radically, including the academic organization of the faculty and departments, and academic promotion requirements. For instance, the State Academy of Fine Arts was incorporated into a new university and industrial design was relocated under the Faculty of Architecture like the newly established industrial design

department at METU. As part of the same restructuring initiative, the first MSc and PhD programs in industrial design were established in 1982 at Mimar Sinan University (MSU, formerly the State Academy of Fine Arts). Given the short history of industrial design in Turkey, the establishment of the first PhD program was surprisingly early. For instance, the first PhD program with industrial design orientation was started in 1992 in the US where the first university program of industrial design education in the World was also started in the early 1930s.

It must be noted that the establishment of a PhD program in industrial design in Turkey was neither motivated academically, nor demanded by the industry but simply was enforced bureaucratically by the Turkish Higher Education Council (YÖK) (Er, 1998; Er and Bayazit, 1999). In this context, master's degree in industrial design was naturally perceived as a professional specialization in a design subject, and as being more or less the extension of the undergraduate design education. This was fairly understandable and may be acceptable for a tradition of fine and applied arts. Nevertheless, the application of this approach into the PhD education led to the reduction of research into the subject matter, and a perception of PhD as further professional specialization in design. That distorted vision of PhD in design, weakening the research orientation of postgraduate design education has become one of the structural problems of design research in Turkey since then (Er, 1998; Er and Bayazit, 1999).

With the higher education regulations of 1982, holding a PhD or a degree of its equivalent was imposed as a precondition to be appointed as assistant professor in all disciplines. In other words, since 1982 a PhD degree is required if one wants to pursue a career in industrial design education in Turkey. This requirement created a vital link between industrial design education and research degrees, and consequently a demand for design research education. The complications of the PhD requirement for design teaching were discussed in detail elsewhere (Er, 1998; Er and Bayazit, 1999). However, here it must be noted that the imposition of the PhD degree upon design educators who would not otherwise be voluntarily involved in research, had a paradoxical impact on design research in Turkey. On the one hand, it has corrupted the very nature of doctoral study as it led to the conception that holding a PhD degree is a standard academic promotion mechanism which needs to be obtained one way or another. On the other hand however, it has also laid the foundations of a legitimate ground for a design research culture in the Turkish design education.

The first results of academic studies started appearing in the second half of the 80s. These were mostly master dissertations in design completed by research assistants and graduate students at MSU or in related neighbouring disciplines like architecture at other universities such as METU. In the late 1980s, in addition to MSU, ITU and Marmara University started their master's programs in industrial design. The early 90s witnessed an increase in the number of master and doctoral studies in industrial design (Korkut et al., 1998). In 1995, Izmir Institute of Technology started a master's program while ITU started the second PhD program in industrial design in Turkey in 1996. METU also launched an MSc program with a research orientation in 1997, and a PhD program in 2004. In addition to these, in the 1990s, the master's programs of graphic design and interior architecture departments of Bilkent University, Ankara, became alternative academic settings where postgraduate study with an industrial design orientation could

be undertaken. All of these postgraduate programs in different universities, even the ones located in Fine Arts faculties have official claims to be associated with, or oriented towards design research rather than advanced professional learning in design. To some extent, despite the existence of different beginnings, the development of design research in the context of the postgraduate design education appears to be in parallel with what happened in some other newly industrialized countries such as Brazil and Mexico (e.g. Flores, 2000). However, we need to look into other variables such as the profile of postgraduate industrial design students to understand the specific nature of design research in the Turkish context.

Profile and size of the industrial design research community in Turkey

In the 1980s, almost all of the masters or PhD students in industrial design were instructors and research assistants at the Departments of Industrial Design in various universities. The overwhelming majority of PhDs were awarded to people who had teaching positions in the existing industrial design departments. However, since the mid 90s, the number of postgraduate design students without academic positions has increased. For instance among 122 postgraduate students who are enrolled in master's and PhD programs of the Department of Industrial Product Design at ITU (90 and 32 in 2006), only 19 of them are research assistants or instructors at various universities (15 PhD, 4 master's students). The increasing attraction of postgraduate industrial design education to young graduates having no or limited professional experience can be partly explained with the lack of employment opportunities of industrial designers in the modern sectors of the Turkish industry, and the emergence of industrial design education sector in new state and privately funded universities with considerable employment prospects. For the last 10 years, the average number of the faculty with PhDs in industrial design departments has been doubled, while the number of industrial design departments has also increased from only three in 1990 to 11 in 2006. Ertan (2006) provides the list of those universities with operational industrial design departments in Turkey as follows: Mimar Sinan Fine Arts University, METU, Marmara University, ITU, Yeditepe University, Anadolu University, Izmir Institute of Technology, Izmir University of Economics, Doğuş University, Kadir Has University and Haliç University. More and more academics in industrial design now obtain PhDs, and engage in research practice at national and international levels. By 2006 there are about 40 academic members of staff with PhDs in industrial design at the Turkish universities. The number of PhD students at ITU and METU are also on rise due to the increasing demand of newly established industrial design departments in other universities.

Another recent development is the increasing interest of the graduates of engineering, architecture, management and some social science departments in postgraduate industrial design education. In the absence of a strong demand from the industry towards such interdisciplinary professional backgrounds for the time being, the popularity of postgraduate industrial design programs with research orientation among the graduates of other disciplines can partly be explained with reference to the rising public profile of industrial design through visual mass media. Nevertheless, the rich diversity in the disciplinary backgrounds of young design researchers is also a significant potential for innovative research projects and design solutions when their research service is required for interdisciplinary design problems by the industry.

Weak in networking with other universities and the industry

It would be fair to say that, despite still being small in size, today there is an emerging research community in the field of industrial design in Turkey. Nevertheless, linkages among design researchers based at different universities are still weak. While national academic events to share knowledge and experience are rare in industrial design, staff exchange programs between universities simply do not exist.

Two one-day seminars that were organized under the title of “ITU Industrial Design Meetings” by the Department of Industrial Product Design at ITU in the late 90s may be considered as the first examples of attempts to break up the isolation design researchers in different universities. The second meeting in May 1999 in particular focused on postgraduate education in industrial design. While such academic events of small scale contributed to the establishment of a national platform to share knowledge and ideas in industrial design research and education in the late 90s, a major national design conference in Turkey had to take another 7 years to be organized, which is the 3rd National Design Congress that took place in June 2006 at ITU, as the only major national academic event in industrial design since 1996.

Apart from the isolation of researchers in different institutions, the design research has also remained to be isolated from the industry and the design practice. The fact that industrial design first emerged at educational level prior to its practice due to the late industrialization process of Turkey also meant that the industrial design education did have a weak relationship with the industry. In the early phases of its development, the weak links with the industry provided a relative autonomy for the design education from the traditional skill-based demands of industry for professional design training, and therefore created a room for establishing basic academic settings for design research at universities (Er, 2001). However this also nurtured the perception of design research as a pure function of academic domain and further delayed the creation of vital links with industry at local or national levels.

The lack of links with the private and public sectors and the society at large as commissioners of design research as a value-creating resource appears to be the most serious problem to be overcome in the coming years as design research needs those links to secure a sustainable development in Turkey. Unless solved in the foreseeable future, this structural problem would block both, obtaining a legitimate public perception of being a scientific and professional activity of significant social and economic value, and the flow and allocation of funds from industrial sources to sustain a meaningful existence for design research in Turkey in the long term.

Strong in international character

Although research activity in the postgraduate design education at universities remained isolated in both institutional and international sense until the mid 1990s, the international links of Turkish design researchers have developed rapidly since then. Today, many Turkish researchers have stronger international links with their foreign colleagues based in the UK and other EU member countries, US or elsewhere than the local ones within the same city. Increasing internationalization of design research in Turkey is also supported recently by the Socrates-Erasmus student and staff exchange program by the European Union.

Today, it would not be wrong to state that the studies of Turkish design researchers mostly appear in English rather than Turkish, and many are presented or published outside of Turkey. For the last ten years increasing number of research articles by Turkish academics appeared in internationally respected design journals such as *Design Studies*, *The Design Journal*, *Journal of Design History*, and *Design Issues* (i.e. Hasdoğ̃an, 1996; Er, H. A., 1997; Er, Ö., 1997; Er and Bayazit, 1999; Er, Korkut and Er, 2003; Bayazit, 2004; Timur, 2006; Şatır, 2006). In addition to these, other articles also appeared in English in the *Journal of the Faculty of Architecture*, a periodical published by METU (Er, H. A., 1993; Hasdoğ̃an, 1995; Er, Ö., 1996). Even a sharper increase has been observed in the number of papers from Turkey, which have been submitted to and presented in international design conferences. The change in the number of Turkish participants in the European Academy of Design (EAD) Conferences, a major periodical design research event in Europe, is a good indicator of this fact. While there was only one participant from Turkey in the 2nd EAD Conference held in Sweden in 1997, the number of participants from Turkey in all the EAD Conferences in Portugal, Spain and Germany during the 2000s increased to 4, 8 and 7 respectively.

In the 2000s, Turkey also witnessed design research events of international nature and three major international industrial design conferences were organized within four years. The first one organized by ITU in cooperation with the Kent Institute of Art and Design in the UK was *Mind the Map: 3rd International Conference on Design History and Design Studies*, which took place in 9-12 July 2002, Istanbul. In 2004 *4th International Conference on Design and Emotion* was organized by METU in Ankara, and in 2005 *1st Product and Service Design Symposium and Exhibition on Agricultural Industries: Olive Oil, Wine and Design* was organized by Izmir University of Economics, which will also be hosting *the 7th European Academy of Design Conference* in Izmir in 2007.

The strong international links of design researchers is another peculiarity that is not only confined to Turkey. In many other NICs similarities of this kind exist, which are related to the fact that a significant number of design researchers studying for academic degrees in the central countries are in fact from NICs. An international study of PhD students in design (Melican et al., 1998) also revealed that almost half of the PhD students in design from NICs such as Argentina, Brazil, Mexico, Taiwan, S. Korea and Thailand. These students are mostly based in educational institutions in the US and the UK, and their studies are financially supported by their own governments. It is rather interesting to note that design research education in the center has been supported by the peripheral countries in terms of human and financial resources, especially during the 1990s. Now in those peripheral countries we witness the existence and the growing body of a new breed of design educators, trained as industrial designers but evolved into being design researchers due to their PhD studies in the central countries. A very similar pattern is also observed in Turkey.

Whatever the reasons for increasing internationalization of design research scene are, it is a promising sign that Turkish design community can also produce design research pieces of international standards, and eager and prepared to take part in international design research networks and projects.

Conclusions

Although the industrial design education and research has come out as a result of the “modernist development paradigm” in countries such as Turkey, a latecomer to the industrialization process, its development followed a unique path shaped by the dynamics resulting from the interaction between national and international conditions.

Since design research is a recent phenomenon even in the countries where design professions were institutionalized long ago, it is expected that the general problems of design research in the center will aggravate in the periphery. When one looks into the state of design research in Turkey, this appears to be the case. Problems of design research such as the ongoing identity problem of design establishing itself as a discipline with its own ways of knowing, thinking and acting (Cross, 2002) and the difficulty faced by design education in linking with corporate funding also exist in Turkey in a bigger scale. However, the problematic dimensions of design research in a newly industrialized country are beyond these general issues and have certain characteristics due to different historical contexts to which design research was imported. To clarify these characteristics, one needs to answer the basic questions posed in the beginning of this article about industrial design research in the Turkish context by 2006.

- What is design research in Turkey?: Systematic creation of design knowledge (mostly for obtaining an academic degree or promotion).
- Who needs design research in Turkey?: Mostly design academics and postgraduate students.
- Who conducts design research in Turkey?: Mainly design academics and postgraduate students.
- Who finances it?: Mainly universities or the Government.

As can be understood from the answers, in terms of its major stakeholders, industrial design research in Turkey is differentiated from its counterpart in the center, although it still retains the original aim of creating design knowledge in the Turkish context. This differentiation is, of course, closely related to the historical evolution of design research in a newly industrializing country context. The differentiated reality of industrial design in the periphery is occasionally described as being ‘peculiar’ since the basic elements of this reality do not emerge as expected, and are not observed in the original development of industrial design in the center (Er, 2001). The very existence of design research in the periphery can also be mentioned as one of those peculiarities.

In the case of Turkey, as explained earlier, industrial design schools were established within the existing universities, and due to the bureaucratic particularities of the university regulations, design educators have been forced to become ‘design researchers’ too. As expectedly, this did not automatically create a strong design research culture, but at least, prepared an institutional framework and official justification to build on. Now, there is no doubt that research has a legitimate ground in industrial design education in Turkey. Although in terms of the quality of research there is still much to improve, faculty members in industrial design are expected and encouraged to have design research knowledge and skills.

Peculiarities of design education and research resulting from a delayed and a different path of development is generally described as structural

deficiencies, however they may also be the sources of opportunities. In the case of Turkey for example, today industrial design educators with formal research training and experience are close to the point of creating a critical mass to redefine the design education, although their absolute numbers are still low in comparison to their counterparts in the central countries.

Nevertheless, the weak relationship with the industry and the design practice is still a major problem as it causes the lack of demand for new knowledge and the necessary feedback to develop relevant research questions and methodologies. The lack of communication and cooperation between different departments and universities, and the insufficient dissemination of research results within Turkey are also among serious problems. The contributions of other design disciplines such as graphic/communication design, multimedia, textile and fashion to design research are still marginal and needs to be cultivated.

On the other hand, there appears to be a promising future prospect for industrial design research in Turkey. Unlike the earlier fragmentation of research in architectural design, design research paradigm is still accepted as a general framework for all knowledge-creating activities in industrial design. In addition, since the late 1990s, largely due to the Turkish industry's emerging competitive needs in global markets, a need for knowledge-based, interdisciplinary design qualifications has begun to develop. Even some early examples of industry-based design research projects have begun to emerge. In the medium term, such projects are expected to create a demand for advanced design research capabilities solving specific design problems of the industry. Such capabilities will require strong theoretical and methodological frameworks. In the long term, they are expected to increase the demand for professional researchers in the field of industrial design. By the time being, industrial design research in Turkey is mainly an academic activity with weak links to the industry and the profession, but also with an ever enlarging human resources and stronger connections to the international design research world.

In conclusion, despite the existence of a number of serious problems, the necessary industrial demand appear to be emerging to meet the design research capacity created in the academic scene. To accelerate and accomplish the requirements of this meeting will be a challenge for the creation of the design research culture in Turkey. Whether that challenge can be taken up or not will be a vital test for the knowledge and skills of Turkish design researchers.

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Notes:

1. The category of Newly industrializing Countries (NICs) is a social/economic classification status applied to several countries around the world. NICs are countries that are not quite yet at the status of a full-fledged advanced market economy but still more advanced than the ones considered as the Third World or the least developed countries.

2. The proceedings of these seminars were made available on the internet: http://www.tasarim.itu.edu.tr/dosyalar/ITU_3UTK_Kitap.pdf

References

- Archer, B. (1998), "Design, Innovation, Agility", opening address, **Quantum Leap-Managing New Product Innovation Conference**, University of Central England, UK.
- Bayazıt, N. (2006), "Tasarımı Anlamak ve Anlatmak", H. Alpay Er et al (eds.), **III. Ulusal Tasarım Kongresi: Türkiye’de Tasarımı Tartışmak Bildiri Kitabı**, 19-22 Haziran 2006, İTÜ Endüstri Ürünleri Tasarımı Bölümü.
- Bayazıt, N. (2004), "Investigating Design: A Review of Forty Years of Design Research", **Design Issues**, Vol. 20, no. 1, 2004. 16-29.
- Buchanan, R. (2001), "The Problem of Character in Design Education: Liberal Arts and Professional Specialization", **International Journal of Technology and Design Education**, 11, pp. 13-26.
- Cross, N. (1999), "Design Research: A Disciplined Conversation", **Design Issues**, Vol. 15, no. 2, pp. 5-10.
- Cross, N. (2002), "Design as a discipline", discussion paper presented in **Designing Design (Research) 3: ‘The Inter-disciplinary Design Quandary’ Conference**, 13th February 2002, De Montfort University.
- Er, H. A. (2006), "Önsöz: Tasarımı Türkiye’de Türkiye İçin Tartışmak", H. Alpay Er et al (eds.) , **III. Ulusal Tasarım Kongresi: Türkiye’de Tasarımı Tartışmak Bildiri Kitabı**, 19-22 Haziran 2006, İTÜ Endüstri Ürünleri Tasarımı Bölümü.
- Er, H. A. (2001), "The Advantage or Disadvantage of Delay? - Peculiar Characteristics of Industrial Design Education in the Periphery", L. Collina and G. Simonelli (eds.), **Designing Designers –Training Strategies for the Third Millennium**, Edizioni POLI.DESIGN, Milano.
- Er, H. A. (1999) "Redefining PhD in Design in the Periphery: A Critical Review of the Development Characteristics of the Doctoral Education in Industrial Design in Turkey" **Doctoral Education in Design: Proceedings of the Ohio Conference**, R.Buchanan, D. Doordan, L. Justice and V. Margolin (ed.), School of Design, Carnegie-Mellon University, Pittsburgh, PA.
- Er, H. A. (1997), "The Development Patterns of Industrial Design in the Third World: A Conceptual Model for Newly Industrialised Countries" **Journal of Design History** (10) 3, pp. 293-309.
- Er, H. A. (1993), "The State of Design: Towards an Assessment of the Development of Industrial Design in Turkey", **METU Journal of the Faculty of Architecture**, Vol. 13, no. 1-2, pp.31-51.
- Er, H. A. and Bayazıt, N. (1999), "Redefining the "PhD in Design" in the Periphery: Doctoral Education in Industrial Design in Turkey", **Design Issues**, vol. 15, no. 3, pp. 34-44.
- Er, H. A., Korkut, F. and Ö. Er (2003), "US Involvement in the Development of Design in the Periphery: The Case History of Industrial Design Education in Turkey", 1950s-1970s, **Design Issues**, Vol. 19, no. 2, pp. 17-35.
- Er, H. A., F. Korkut and Ö. Er (eds) (1998), **Nesnel I: Endüstriyel Tasarım Eğitimi**, Endüstriyel Tasarımcılar Meslek Kuruluşu - Boyut Yayın Grubu, İstanbul.
- Er, Ö. (1997), "Nature of Design Consultancy Work for Newly Industrialised Country Clients", **The Design Journal**, Vol.1, Issue 1, pp.30-40.

- Er, Ö. (1996). "Development of Design Consultancy Business and Its Significance for Clients from Newly Industrialized Countries", **METU Journal of the Faculty of Architecture**, Vol. 15, no. 1-2, pp.75-90.
- Ertan, M. (2006), "Türkiye'de Periferide Endüstri Ürünleri Tasarımı Eğitimi Stratejisi Üzerine Düşünceler" in H. Alpay Er et al. (eds.), **III. Ulusal Tasarım Kongresi: Türkiye'de Tasarımı Tartışmak Bildiri Kitabı**, 19-22 Haziran 2006, İTÜ Endüstri Ürünleri Tasarımı Bölümü. s. 86-95.
- Erzurumluoğlu-Er, Ö. (1991), **Product Design in the Turkish Furniture Industry and Its Potential Role with Respect to International Developments**, MSc Thesis, Middle East Technical University.
- Flores, O. S. (2000) "Research and Design in Mexico", **Design Research: Proceedings of the Politecnico di Milano Conference**, Milano 18-20 May 2000, pp. 490-494.
- Hasdoğan, G. (1996), "The Role of User Models in Product Design for User Needs", **Design Studies**, Vol. 17, no.1, pp.19-33.
- Hasdoğan, G. (1995), "Product Induced Home Accidents: A Search for Safer Designs", **METU Journal of the Faculty of Architecture**, Vol.12, no.1-2, pp. 49-60.
- Korkut, F., Ö. Er and H. A. Er (eds.) (1998), **Notlar + Kaynakça: Türkiye'de Endüstriyel Tasarım Yazını**, Endüstriyel Tasarımcılar Meslek Kuruluşu, Ankara.
- Margolin, V. (2000), "Building a Design Research Community", in S. Pizzocaro et al. (eds.) **Design Research, Proceedings of the Politecnico di Milano Conference**, 18-20 May, Milano, Italy.
- Melican, J., Falcao Barros, R. Holguin, R. and M. J. Joh, (1998), "So, you are going to be...a doctor of design? Results of a Cross-Cultural Survey of Motivations for Pursuing a Ph.D. in Design" in R. Buchanan et al. (eds.) **Doctoral Education in Design**, 8-11 October 1998, Ohio State University.
- Owen, C. (1991). "Design Education in the Information Age", **Design Issues**, Vol. 7, no. 2, pp. 25-33.
- Şatır, S. (2006). "German Werkkunstschules and the Establishment of Industrial Design Education in Turkey", **Design Issues**, Vol. 22, no. 3, pp. 18-28.
- Timur, Ş. (2006), "The Eastern Way of Time Keeping: The Object and Ritual of Nargile", **Design Issues**, Vol. 20, no. 1, pp. 16-29.

Periferide tasarım arařtırmaları: Türkiye'de endüstriyel tasarım arařtırmalarının temelleri ve gelişim özelliklerinin incelenmesi*

Genel anlamda tasarım arařtırmalarının gelişimi yeni ekonominin artan bilgi ihtiyaçlarının koşulladığı bir süreç olarak anlaşılabilir. Endüstriyel tasarımın stratejik bir rekabet faktörü olarak giderek artan bir oranda kabul gördüğü dikkate alındığında, endüstriyel tasarım alanında yapılan arařtırmaların, giderek bilgi ekonomilerine dönüşen küresel ekonominin merkezinde yer alan ülkelerde ortaya çıkmış ve hem akademik hem de endüstriyel anlamda önemli bir etkinlik alanı haline gelmekte olması, beklenen ve doğal karşılanması gereken bir durumdur.

Öte yandan beklenilmedik bir gelişme olarak, tasarım bilgisine olan gereksinimleri görece zayıf ya da gelişmemiş olan ve küresel ekonominin periferisinde yer alan ülkelerde de tasarım arařtırmalarının mevcut olduğu gözlenmektedir. Yeni endüstrileşen bir ülke olarak Türkiye üzerine odaklanan bu makale, tasarım arařtırmalarının periferi ülkelerdeki farklı varoluş biçimlerinin anlaşılmasına katkı sağlamayı amaçlamaktadır. Makalede öncelikle tasarım arařtırmasının ABD ve İngiltere gibi merkez ülkelerdeki evrimi gözden geçirilmekte ve bu evrim sonucunda

geleneksel noktada, tasarım araştırmasının ne olduğu, kimlerin tasarım araştırmasında ihtiyaç duyduğu, kimler tarafından gerçekleştirildiği ve fon sağlandığı gibi temel sorulara bu ülkeler için yanıt verilmektedir. Daha sonra, aynı soruların endüstrileşme sürecine gecikmeli olarak katılan periferi ülkeler için de yanıtlanabilmesi amacıyla, “Yeni Endüstrileşen Ülke” örneği olarak Türkiye’de endüstriyel tasarım araştırmalarının nasıl bir gelişme gösterdiği, tarihsel olarak incelenmektedir.

Endüstriyel tasarım eğitimi ve araştırmalarının endüstriden henüz bir talep doğmamışken modernist bir gelişme paradigmasının sonucu olarak başlatılmış olması genel olarak tüm yeni endüstrileşen ülkelerde gözlenmekte ise de, ulusal ve uluslararası dinamiklerin karşılıklı etkileşimi sonucunda, endüstriyel tasarım araştırmalarının Türkiye’deki gelişimi kendine özgü ve hatta “tuhaf” olarak nitelenebilecek bazı özellikler de taşımaktadır.

Türkiye’de endüstriyel tasarım alanında araştırmayı güdüleyen temel faktörün endüstrinin ihtiyaçlarından ziyade akademik yükselme kriterlerini karşılama çabası olması, 1980 yılında yaşanan askeri darbe sonrasında yeniden yapılandırılan Türk Yüksek Öğretim Sisteminin endüstriyel tasarım eğitimi verilen üniversitelerde tek tip bir akademik yükselme sürecini öngörmesi gibi faktörler endüstriyel tasarım araştırmalarının Türkiye’deki gelişiminin kendine özgü niteliklerinin temel kaynaklarıdır. Öte yandan bu faktörler bir yandan endüstriyel tasarım alanında yapılan araştırma çalışmalarının “doktora düzeyinde” görece erken ve beklenmeyen gelişimi için gerekli koşulları hazırlarken, diğer yandan ise Türkiye’de endüstriyel tasarım alanında araştırma kültürünün temelini oluşturmuştur. Yine akademik yükseltme kriterlerinin bir sonucu olarak ve ulusal endüstrinin taleplerinin sınırlı olması nedeniyle endüstriyel tasarım alanında araştırma yapan öğretim elemanları arasındaki iletişimin, yurtdışındaki meslektaşlarıyla iletişimlerinden daha zayıf ve bilimsel yayınların Türkçe’den daha çok İngilizce yapılıyor olması gibi faktörler Türkiye’deki durumun kendine özgü nitelikleri arasındadır. Makalede, Türkiye’de endüstriyel tasarım eğitimi ve araştırması ile meşgul olan topluluğun büyüklüğü ve sahip olduğu profilin incelenmesi sonrasında, başlangıçta merkez ülkeler özelinde yanıtlanan sorular bu kez de bir “Yeni Endüstrileşen Ülke” örneği olarak Türkiye için yanıtlanmaktadır.

Gecikmiş endüstrileşme sürecinin etkilerinin yanısıra, yüksek öğretim sisteminde gerçekleştirilen yeniden yapılanmanın sonuçlarından kaynaklanan kendine özgü gelişme sürecinin bazı yapısal sorunlarla beraber fırsatlar da yaratabileceği öngörülmelidir. Örneğin bugün tasarım araştırmacı sayısının endüstriyel tasarım eğitimi endüstri, toplum gibi paydaşların ihtiyaçlarını dikkate alacak şekilde dönüştürebilecek kritik bir kütle oluşturmaya yaklaşmış olması, Türkiye için olumlu bir potansiyel olarak değerlendirilebilir. Öte yandan 1990’ların sonlarından itibaren Türk endüstrisinin küresel pazarlarda rekabet edebilmek için endüstriyel tasarıma ihtiyaç duyuyor olması, henüz çok sınırlı sayıda olsa bile endüstri destekli tez çalışmalarının yapılması, yeni metodların ve teorik yaklaşımların üretilmesini teşvik eden unsurlar olarak gözlenmektedir. Aşılması gereken bazı sorunlara karşın, Türk endüstrisinin akademik ortamda yaratılan tasarım araştırmaları kapasitesine ihtiyaç duyma noktasına gelmiş ve talep yaratmaya başlıyor olması gelecek için olumlu bir gelişmedir. Türkiye’de endüstriyel tasarım alanında güçlü bir araştırma kültürünün yaratılması için tasarım araştırmalarını talep eden kesimlerle tasarım araştırmacılarının buluşmalarını sağlayabilmek bugün önümüzdeki en önemli aşama olarak görülmektedir.