

research newsletter



Eastern Mediterranean University

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Dear Colleagues,

I hope you will enjoy reading the articles featured in this last issue for 2007: Mehmet Ali Özarlan gives us an overview of approximation theory which has widespread applications in all branches of basic sciences, engineering and social sciences; Osman M. Karatepe describes his research on work-family balance in frontline service jobs of the hospitality industry; and finally, Aslı Özgen Tuncer provides us with a literary analysis of the work of Nobel-winning author Orhan Pamuk.

This issue marks the end of my term as the editor-in-chief of *EMU Research Newsletter*. About a year ago, I took the initiative to restructure the newsletter and we made a transition from just a formal presentation of EMU's research output to a format that allowed an in-depth look at some of the exciting research projects at The University. This transition was meant to help eliminate the habit of reading only what applied directly to one's own work and to impart an appreciation of diversity; I believe our endeavor was mostly well-received. Throughout the year, we primarily aimed at highlighting our research potential in miscellaneous fields here at EMU.

I would like to thank all the researchers who actively contributed to the newsletter over the past year. I would also like to thank the readers for their valuable comments and suggestions.

With best regards,

Dizem Arifler

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■ News Highlights ■

■ Fall 2007 Ministry of Education and Culture project award recipients announced

In the Fall of 2007, TRNC Ministry of Education and Culture approved financial support for five research projects from EMU. These projects will be funded jointly by the Ministry within the framework of 'Support for Scientific Activities in Higher Education' and by Eastern Mediterranean University. Below is a list of the principal investigators whose projects were approved, the project titles in Turkish as originally proposed by the investigators, and the total amount of funding for each project:

■ Murad Annaorazov (Physics)

Project Title: Birinci Dereceli Faz Geçişleri ve Manyetik Soğutma – Işıl İşlemin Manyetik Soğutucu Malzemenin Özel-likleri Üzerine Olan Etkileri

Amount: 10,500 YTL

■ Özgür Eren (Civil Engineering)

Project Title: Tahribatsız Deney Metodları ile Beton Basınç Mukavemeti Tayini

Amount: 11,300 YTL

■ Mukaddes Fashl (Interior Architecture)

Project Title: Akdeniz üçlemesi – II: 'KKK' : Kıyı yerleşimleri – Kültür – Koruma

Amount: 7,000 YTL

■ Erhan İnce (Electrical and Electronic Engineering)

Project Title: En son teknoloji arkaplan modelleme teknikleri ve bu tekniklerin yol ve kavşaklardaki trafik analizi için kullanımı

Amount: 14,300 YTL

■ Mustafa Uyguroğlu (Electrical and Electronic Engineering)

Project Title: Bilgisayar Görü ve RFID Tabanlı Akıllı Kişi Takip Robotu

Amount: 17,805 YTL

■ EMU approves financial support for twelve Type-A research projects

In the Fall of 2007, EMU approved financial support for twelve Type-A research projects that will be funded entirely by The University. Below is a list of the principal investigators whose projects were approved, the project titles in English or Turkish as originally proposed by the investigators, and the total amount of funding for each project:

■ Dizem Arifler (Physics)

Project Title: Development of a Computational Framework for Photonic Biomedical Nanotechnology with Applications to Precancer Imaging

Amount: 16,600 USD

■ Uğur Atikol (Mechanical Engineering)

Project Title: HybridSolar Hydrogen Car Design

Amount: 12,000 USD

■ Hikmet Ş. Aybar (Mechanical Engineering)

Project Title: Simulation of Hydrodynamics Using SPH Method

Amount: 3,714 USD

■ Mustafa Dağbaşı (Mechanical Engineering)

Project Title: Internet-Based Bidding for Intelligent Equipment Sharing over the Network Manufacturing System for Small and Medium Size Enterprises (SMEs)

Amount: 10,000 USD

■ Hasan Demirel (Electrical and Electronic Engineering)

Project Title: Iris Recognition System Using Different Color Channel Statistics

Amount: 16,510 USD

■ Atilla Elçi (Computer Engineering)

Project Title: Provision of Semantic Web Services through an Intelligent Semantic Web Service Finder

Amount: 6,200 USD

■ Erzat Erdil (Electrical and Electronic Engineering)

Project Title: Güneş Enerjisi ile Zeytin Hasat Makinası

Amount: 1,600 USD

■ Mustafa Gazi (General Education)

Project Title: Civa İyonuna Selektif Kitin ve Kitosan Bazlı Adsorbentlerin Sentez ve Uygulaması

Amount: 17,000 USD

■ Marifi Güler (Computer Engineering)

Project Title: Intelligent Computation using the Synchronized Action of Synaptically Coupled Dissipative Stochastic Mechanics Based Model Neurons

Amount: 10,580 USD

■ Majid Hashemipour (Mechanical Engineering)

Project Title: Intelligent Control of Ni-Ti Rotary Instruments for Different Root Canals during Endo Application

Amount: 17,000 USD

■ Selcan Timur (Business Administration)

Project Title: The Barriers to Recruitment and Retention of Managerial Staff in the Hospitality Industry in TRNC

Amount: 4,264.39 USD

■ Bela Vizvari (Industrial Engineering)

Project Title: Recent and Future Trends on the Car Market of TRNC

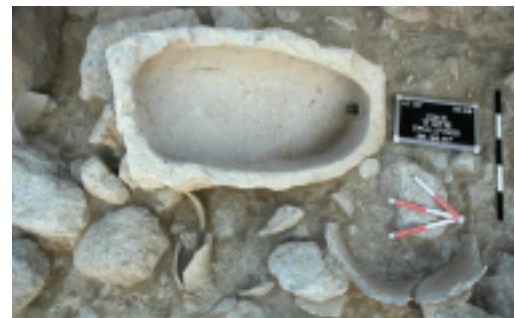
Amount: 1,500 USD

■ **Eastern Mediterranean Cultural Heritage Research Centre completes another round of archaeological fieldwork at the site of Kral Tepesi near Kaleburnu**

Eastern Mediterranean Cultural Heritage Research Centre (Doğu Akdeniz Kültür Miraslarını Araştırma Merkezi, or DAKMAR for short) conducted its third season of salvage work at the archaeological site of Kral Tepesi near Kaleburnu during July-August 2007. Although archaeological remains on the terraces face destruction by agricultural work, the plateau seems to be in more imminent danger due to erosion. Therefore, this year's work again concentrated on the southern and northern parts of the summit. On the higher southern part of the plateau, new trenches were opened to get information about the extension of the Late Bronze Age residence. Considerable parts of the building to the east and west are already lost to erosion, and relatively few remains exist in the south. Among the debris of collapsed walls, the team discovered a small fragment of burnt clay bearing a three-line inscription in a writing system called Cypro-Minoan, which is approximately 3200 years old. Although several other inscriptions had been previously unearthed at Kral Tepesi, this one was the longest written text found till then. Inscriptions at Cypriote Late Bronze Age sites are not rare but mainly consist of single signs or very short texts. The newly discovered fragment from Kaleburnu is hence an extremely valuable addition to the known corpus of Cypro-Minoan texts. Several new fragments of painted wall plaster confirmed the existence of a residential part of the building within the upper floors.

Perhaps the most exciting aspect of this fieldwork was the discovery of strong evidence that the Late Bronze Age building was erected on top of much older architectural structures. Remains of at least four large round houses could be identified. Scarce evidence at hand may suggest dating these structures back to the Chalcolithic Period, which would mean that the settlement history of Kral Tepesi might be traced back thousands of years more. Work on the north plateau concentrated on some rooms near the eastern slope, all in immediate danger of destruction by erosion. At least one of them showed evi-

dence for multi-story architecture, while others contained finds and installations usually linked to household activities such as cooking and storing. Additional finds such as a big stone basin, a clay 'larnax' (often interpreted as a bathtub) or huge jars coated inside with fine plaster are more difficult to interpret and the function of this part of the settlement is yet to be determined. Almost all the rooms displayed cracks in the walls and broken floors along with other indications of damage, all suggesting the possibility of an earthquake as the reason for abandonment of the settlement.



Examples of archaeological finds unearthed at the site of Kral Tepesi near Kaleburnu

It is important to point out that DAKMAR managed to establish several new international collaborations for the Kaleburnu/Kral Tepesi project. Jaroslav Peska (Director, Archaeological Centre of Olomouc, Czech Republic) and Miroslav Kralik (Department of Anthropology, Masaryk University, Brno, Czech Republic) developed new techniques for microscopic analysis of archaeological finds and applied them for the first time to ancient artifacts from Cyprus. Evidence was found for the presence of organic material inside the storage jar that contained a bronze treasure, and another rather long inscription could be recognized on one of the bowls. Lisa Kealhofer (Santa Clara University, California, USA) and Peter Grave (University of New England, Australia) from the Anatolian Iron Age Project took samples of clay from forty different sources in order to bring together comparative data for identification of Cypriot pottery abroad.

■ The Faculty of Education at EMU and Istanbul Technical University Turkish Music State Conservatory signs a collaboration protocol



ITU-EMU joint orchestra conducted by Aleksandr Zabolotkov

A collaboration protocol has recently been signed between the Faculty of Education at EMU and Istanbul Technical University (ITU) Turkish Music State Conservatory. The main purpose of this collaboration is to promote Turkish culture in the international arena through joint conferences, symposiums and concerts, and to allow exchange of academicians between the two institutions. The protocol also calls for joint performances that are aimed at raising awareness of Turkish folk music and dance. The ITU-EMU orchestra formed by students from EMU, EMU Allegro Youth Music School and ITU Turkish State Conservatory gave its first concert at EMU on July 5, 2007. The orchestra, which was conducted by Aleksandr Zabolotkov, performed selected traditional Turkish musical compositions arranged by Oğuzhan Balcı from ITU.

■ The 5th International Gazimağusa Symposium provides a discussion forum on the dynamics of conservation and cultural issues in Mediterranean coastal settlements

The 5th International Gazimağusa Symposium: Medi-triology-2 was held on October 8-10, 2007 and was aimed at producing solutions towards conservation of cultural values of the Mediterranean Basin and North Cyprus. The event was organized by the Faculty of Architecture of Eastern Mediterranean University in collaboration with the Gazimağusa Municipality and attracted scientists and researchers from different countries including North Cyprus, Turkey, Italy, England, Iran, Bahrain, Lebanon, and Slovenia as well as representatives from various governmental and non-governmental organizations. The main theme was encoded as 'CCC': Coastal Settlements – Culture – Conservation. The symposium provided a discussion platform on planning in coastal settlements, culture, conservation-renovation, and sustainability. A total of 74 papers and 25 poster-texts were published in the symposium proceedings.

■ EMU hosts a prominent nanotech researcher from Bilkent University in Turkey

The Science and Innovation Society at EMU hosted Hilmi V. Demir from Bilkent University (Departments of Physics and Electrical and Electronics Engineering) on December 26-27, 2007. Hilmi V. Demir is currently the Associate Director of Nanotechnology Research Center and the Principal Investigator of Devices and Sensors Research Group at Bilkent University in Ankara, Turkey. His research group aims to develop and demonstrate innovative chip-scale optoelectronic, nanophotonic, and RF devices and sensors embedded with nanostructures in hybrid architectures for the applications of lighting, displays, communications, imaging, alternative energy, sensing, and environmental decontamination. Financial support for his research is provided by TÜBİTAK (The Scientific and Technological Research Council of Turkey), TÜBA (Turkish Academy of Sciences), ESF (European Science Foundation), European Union, NATO, and industrial programs and projects. Demir is an awardee of EURYI (European Young Investigator Award) and TÜBA-GEBİP (Turkish Academy of Sciences Distinguished Young Scientist Award). The Demir Group is also a member of European Union PhOREMOST Network of Excellence on Nanophotonics. During the first day of his visit, Demir gave a presentation titled "Nanotechnology Research in Turkey", which served as an overview of this revolutionary field and its emerging role in scientific and economical development. His talk covered topics such as the current and potential applications of nanotechnology in defense industry, medicine and environment, and the increasing demand in job market for nanotech experts. On the second day of his visit, Demir was the guest of Department of Physics and gave a more focused and technical presentation titled "Nanophotonics: New technological devices to fight climate changes".

■ Books or book chapters by EMU researchers

The following is a list of recent books and book chapters written or edited by EMU researchers. The list provided here may not be comprehensive as it has been put together based on e-mails sent to the newsletter staff before December 25, 2007.

■ D. Oktay, "Kuzey Kıbrıs'taki Kentler, Kentsel Politikalar ve Yeni Açılımlar," in *Kent ve Politika: Antik Kentten Dünya Kentine*, A. Mengi, Ed., pp. 187-214, Ruşen Keleş'e Armağan Dizisi, İmge, İstanbul (2007).

■ A. Sözen, "The Cyprus Conflict and the UNFICYP" in *Challenges to Peace Operations in the 21st Century*, S. Hürsoy and N. Ada, Eds., pp. 117-223, İzmir University of Economics Press, İzmir (2007).

■ EMU is getting ready to host the XXII National Chemistry Congress

The National Chemistry Congress is organized each year by the Chemistry department of a selected university. It is a significant event for all Turkish societies of chemistry, drawing nearly 1000 participants every year. According to the decision by the Turkish Chemistry Association, EMU was given the privilege to organize the XXII National Chemistry Congress in Famagusta, North Cyprus. The conference is going to be held in Salamis Bay Conti Resort Hotel on October 6-10, 2008 and will provide an excellent opportunity for presentation and discussion of new findings in chemistry. Conference topics will include analytical chemistry, biochemistry, inorganic chemistry, organic chemistry and physical/polymer chemistry. According to the information provided by Huriye İcil, the chair of the organizing committee, EMU's congress website has so far had 4678 visitors from 51 different countries.



The conference committee is proud to have four distinguished international and six national speakers for plenary sessions. Each speaker will offer stimulating and insightful presentations on current and emerging interests of chemists. Plenary lectures will be presented by the following professors: David G. Whitten, Martin Demuth, Frank Würthner, Titus Jenny, Adil Denizli, Bahattin Baysal, Ayhan S. Demir, Metin Balcı, Saim Özkar and Yusuf Yağcı. David G. Whitten is from The University of New Mexico and his scientific, academic and administrative accomplishments have been recognized by many awards. He also holds the position of Editor-in-Chief of the ACS publication *Langmuir*, which is one of the most prestigious journals in chemistry. He will deliver a special lecture titled "Biosensing and Biocidal Activity of Conjugated Polyelectrolytes". Martin Demuth is from Max Planck Institute for Bioinorganic Chemistry, Muelheim-Germany and is one of

the most successful scientists in mechanistic and synthetic (bio) photochemistry. He has recently developed a promising new catalyst that splits water using sunlight and stores the produced hydrogen and oxygen. He will deliver a special lecture with title "Water Splitting with Metal Silicide Semiconductors and Solar Radiation Including Reversible Storage of Hydrogen and Oxygen". Frank Würthner is the Dean of the Faculty of Chemistry and Pharmacology, University of Würzburg-Germany, and is a prominent researcher known for his work in synthesis and investigation of novel dyes with emphasis on noncovalent synthesis of nano- and mesoscopic structures, liquid crystals, and applications in electronics and photonics. He will deliver a special lecture titled "Functional Dye Assemblies for Supramolecular Electronics". Titus Jenny is the Dean of the Faculty of Arts and Sciences, University of Fribourg-Switzerland. He is widely known for his remarkable work in supramolecular chemistry, especially in the field of emission displays (FED) and organic field emission transistors (OFET), and his special lecture is titled "Supramolecular Polymers". Adil Denizli, Ayhan S. Demir, Bahattin Baysal, Metin Balcı, Saim Özkar and Yusuf Yağcı, who are all principal or honorary members of the Turkish Academy of Sciences (TÜBA), will be speaking on "Molecularly Imprinted Polymers and Applications", "Novel Strategies in Carbonyl Umpolung", "A New Dimension in Polypeptides: Chain Extension in Solutions", "Cyclitols: Development of New Synthetic Methodologies for Conduritols, Quercitols and Homoinositols", "Metal Nanoclusters in Hydrogen Economy", and "Benzoxazine Based High Performance Thermoset Polymers", respectively. Other invited lecturers are Azmi Telefoncu, Bekir Çetinkaya, Hasan Erten, Oğuz Okay (principal member of TÜBA) and O. Yavuz Ataman; they will be speaking on "RubisCO: The Enzyme that Feeds the World", "Substituent Effect on Stability and Catalytic Efficiency", "Spectroscopic and Radiochronologic Techniques Used in Environmental Pollution Studies", "Progress and New Methods in Design of Macroporous Polymer Gels", and "Selenium Speciation: Analytical Chemistry in Solution of a Universal Nutrition Issue", respectively. Another distinguished invited lecturer will be attending from University of Cyprus: Athanassios Nicolaides who has remarkable publications in the areas of physical chemistry and computational chemistry will join the XXII National Chemistry Congress and will give a talk titled "Looking for Stable Singlet Carbenes".

On behalf of Eastern Mediterranean University, the conference committee kindly invites everyone interested to participate in this unique event. Detailed information about the congress and scientific/social programs can be found at <http://kimya2008.emu.edu.tr>.



Pure mathematics meets engineering and applied sciences: A glance at approximation theory

By Mehmet Ali Özarslan



Mehmet Ali Özarslan

In general, solutions of many problems arising in engineering, physics and almost all branches of natural and social sciences cannot be obtained analytically. It may be of interest to estimate or recover some required feature of a solution in the form of a function from limited and possibly error-contaminated or noisy information as effectively as possible. This often involves resorting to approximation theory whose major goal is to analyze how functions that are too complicated to work with directly can best be approximated by simpler functions, and to characterize and minimize errors introduced thereby.

Approximation theory finds applications in computer science since implementing general functions on a computer that supports only addition and multiplication operations is a challenge. Splines widely used to fit messy curves or wavelets used to analyze noisy signals and to compress images are all familiar examples of approximation tools.

Approximation theory is a famous

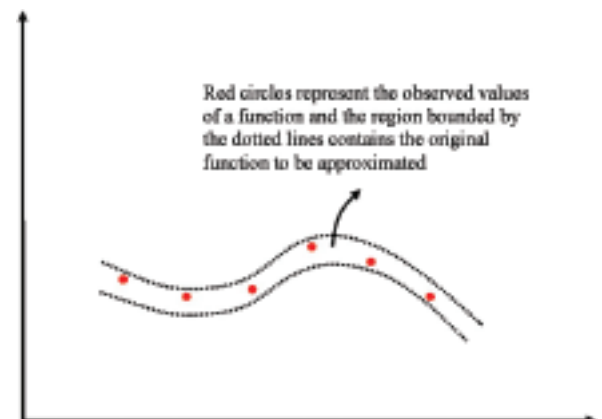
branch of function theory and has attracted the attention of mathematicians for the last 150 years or so. Early work was initiated by Chebyshev and Weierstrass in the 19th century. Among the later contributors to the field were Bernstein, Popoviciu, Lorentz and Korovkin [1, 2]. The main objective of this theory is to construct a sequence of functions with 'good' properties in the given function space to approximate a 'bad' function from that space. Alternatively, one needs to

find out if the sequence of functions converges to a given function in a pointwise or uniform manner. The approximation error is the difference between the original and the approximating function. All known methods for approximating functions by means of algebraic or trigonometric polynomials are based on linear operators. In trying to make the approximation as close as possible to the original function, one may need to narrow the domain over which the operator has to approximate the function. It is possible to reduce the domain into many segments and apply a different operator for each segment.

In recent years, the concept of statistical convergence, which was first introduced by Fast in 1951 [3], has been employed in approximation theory [4]. Statistical convergence is stronger than ordinary convergence [5] and hence it provides more general results [6, 7]. Better error estimates have also been obtained using q -calculus which has critical applications in theoretical physics, especially in quantum physics [8-10].

In collaboration with Oktay Duman from Department of Mathematics at TOBB Economics and Technology University in Ankara, Turkey, we have been looking into ways in which approximations can be improved. Our studies are mainly

Basic concept of approximation theory which aims to minimize the 'error' or the difference between the original and the approximating function. A narrower bound for the approximating function represents a better error estimation.



aimed at providing better error estimations using various operators [11-13]. We are currently working on development of recent methods in approximation theory using statistical convergence and q -calculus.

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Work-family balance in frontline service jobs of the hospitality industry

By Osman M. Karatepe



Osman M. Karatepe

It is acknowledged among hospitality managers that today's sophisticated and discerning customers demand superior quality in services [1]. The delivery of service quality in the hospitality industry highly depends upon the performance of frontline employees having frequent face-to-face or voice-to-voice interaction with customers. Despite this recognition, such employees are confronted with a number of problems such as job insecurity, long hours of work, irregular and inflexible work schedules, inadequate pay, excessive workloads, and role stress [2-4]. Besides, they juggle work and family demands and experience work-family conflict [4]. Work-family conflict refers to "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" [5, p. 77]. Work-family conflict has a bidirectional dimension, where work can

interfere with family responsibilities and where family can interfere with work responsibilities.

The scarcity perspective, which has dominated the extant literature in this research stream, posits that employees participating in work and family roles are unable to manage their work (family) and family (work) demands effectively due to a limited number of physiological and psychological resources [6]. In today's work environment, the increasing number of dual-earner couples with(out) children, single parents and single women in the workforce and changes in gender-role norms have resulted in conflicts in the work-family interface. Consequently, the difficulties employees have in balancing their work and family roles lead to negative outcomes such as job dissatisfaction, low levels of affective organizational commitment and job performance, heightened turnover

intentions, marital dissatisfaction, and family and life dissatisfaction [2-4, 7].

On the other hand, the expansion-enhancement perspective contends that involvement in work and family roles can create a number of benefits that outweigh the costs [6]. In other words, work and family can facilitate one another [8]. Actually, this is consonant with the increasing interest in positive psychology [9]. Work-family facilitation also has a bidirectional dimension and is defined as "the extent to which participation at work (home) is made easier by virtue of the experiences, skills, and opportunities gained or developed at home (or work)" [10, p. 145]. Availability of resources such as family support and spousal support may facilitate functioning in the work domain. Similarly, availability of resources that include social work hours and coworker support may facilitate the integration of family and work roles. Recent empirical studies reveal that work-family facilitation and/or family-work facilitation enhances employees' job satisfaction, affective commitment to the organization, job performance, family, marital and life satisfaction and reduces their turnover intentions [4, 6-8]. Since work-family balance is related to the lack of conflict between work and family domains and the promotion of work-family facilitation [10], investigating the juxtaposition of conflict and facilitation dimensions of work-family balance can delineate a detailed picture of the work-family nexus.

Although examining the fourfold taxonomy of work-family balance in terms of both directions of conflict and facilitation can provide a comprehensive picture of the work-family interface, empirical evidence in the hospitality management and marketing literatures pertaining to the issue of work-family balance in frontline service jobs is very sparse [4, 7]. This

is surprising, since strategies associated with work-family facilitation can help hospitality managers acquire and retain a pool of high performing, satisfied, and committed employees. For example, establishing and maintaining a family-supportive work environment that consists of family-supportive policies and family-supportive supervisors can make frontline employees facilitate the integration of their work and family roles [7]. However, hospitality managers should make sure that taking advantage of various family-friendly benefits does not endanger frontline employees' future career within the organization [11]. Properly trained managers may hold specific meetings with the family members of frontline employees in order to elucidate the positive effects of work-family facilitation and family-work facilitation on work and family outcomes [7]. In addition, hospitality managers can prefer to employ mentors in order to provide their employees with immediate professional assistance or support [2, 7]. Costs associated with such strategies appear to be high. However, the absence of the aforementioned strategies in hospitality organizations can carry a higher cost. As stressed in a past writing, "... if management wants its employees to do a great job with customers, then it must be prepared to do a great job with its employees" [12, p. 64].

As an academician who has published several papers in this research stream using data obtained from samples of hospitality industries in differ-

ent developing countries such as TRNC, Turkey, Nigeria, Albania, and Jordan, I hope that hospitality researchers would be interested in devoting their attention to partially filling in the void concerning the promotion of work-family balance in frontline service jobs.

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Mobile space: Orhan Pamuk's postmodernist house of the cosmos

By Aslı Özgen Tuncer

In the wake of Turkish novelist Orhan Pamuk's Nobel Prize Award, there was much celebration as well as disparagement in the novelist's home country. The latter came mainly from groups who cast aspersions on the author's patriotic credentials. Other political, social and literary groups in Turkey were vociferous in their praise of Pamuk and welcomed the award. In defense of Pamuk's place in international literature, *The Guardian* journalist Maureen Freely, a friend of Pamuk's and translator of some of his work, praised his innovative style and stressed his importance for Turkish literature. She also described Pamuk as a "westernized Turk" [1]. Of course Pamuk's friend was alluding to the fact that Pamuk is cosmopolitan in his learning and is deeply influenced by Western literary tradition. Implicit in the comment too is the fact that Turkey's modernist vocation has been oriented towards westernism since the late nineteenth cen-

ture. However, it must be acknowledged that while Pamuk does look to the west for his literary influences, he remains very much a part of his own culture. Pamuk observes: "I can wander freely both in the space of east and in the space of west, like I wander in the rooms of my house" [2]. The analogy Pamuk makes between the spaces of these cultures and a house is not only a metaphor but also a perfect representative of the art of his novel. Accordingly, a prominent literary and social critic in Turkey, Murat Belge, claims that what Orhan Pamuk has interjected into Turkish literature is the use of architecture as a structural consideration [3]. Pamuk meticulously sets up his multilevel narratives that shift between rooms, observe the world through windows and mirrors and burrow deep into the soil and sea-beds upon which his cities and towns are built. In postmodern style, this architecture is reflexive insofar as it is labyrinthine and folds back on

itself, while thresholds demarcating inside and outside, upper level and lower level, reality and fiction fold into one another like an Escher painting, according to the logic of the Möbius Strip.

Orhan Pamuk's books engage in an exploration of the Eastern and Western dimensions of Turkish cultural identity both historically and contemporaneously. His works present the East/West relation as the confrontation of two colossi; mutually exclusive and self interested. However, in addition to the received symbols of both "civilizations", there is a real engagement of cultural difference, where psychology, aesthetics, cosmology and politics are variable, inter-penetrable and excessive but also prone to power and competing centers of gravity – as fluid and shifting as the currents of the Bosphorus itself.

Certainly the most sustained treatment of the way Turkish identity is implicit in both Eastern and Western culture occurs in *My Name is Red* (*Benim Adım Kırmızı*, 1998), where powerful tensions between East and West are played out in terms of the aesthetics governing the production of the Persian miniaturist painting. The precise demarcations of this dramatic encounter are: the respective spatial conventions of the Italian Renaissance and the traditions of the Persianate style, culturally determined notions of self, and signification – the way meanings are created through symbolic systems.

To the extent that it articulates paradoxical spaces, Pamuk's *My Name is Red* may be considered an exemplary postmodernist narrative, which deconstructs representational demarcations of space and surface. Gilles Deleuze uses Möbius Strip to show the dynamic threshold that separates such demarcations; for Deleuze, what separates inside from outside and the actual from the virtual is always what he calls the dynamic threshold [4]. For example, the threshold that separates the



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virtual from the actual is movement between the two distinctions so that “from virtuals we descend to actual states of affairs, and from states of affairs we ascend to virtuals, without being able to isolate one from the other” [5].

Orhan Pamuk lays down the foundation of his plot according to the structure of miniaturist painting. The characters themselves are forged both in relation to popular scenes from the miniaturist tradition and the exigencies of the narrative itself taking place on the streets of Istanbul in the 1590s. Thus, the characters occupy an unstable space, descending to actual affairs in the lived space of the narrative from the virtual space of signification, *viz.* the traditional miniature and the postmodern novel. These two realms are not separable or isolated from each other and are mediated in part by the reader positioned on the dynamic threshold: “The threshold organizes on either side of its fine line two different conditions, and the ever-mobile event trespasses backwards and forwards across this line or surface” [6].

Deleuze himself discusses the event of the threshold in terms of architecture in his discussion of the “Baroque House”, an allegory derived from the philosophy of Leibniz. The house consists of two levels – a ground floor with four windows and a large door, which is approached by steps. Above, the second story is nothing but a closed room, with five small openings in its floor to let in emanations from below. Evidently, the five openings below represent the five senses and the closed room upstairs a kind of mental space whose reception is based on the physical body. The restless inhabitant of this house is the “event”, “neither material nor immaterial... the event wanders about, ghost-like, ungraspable, in-between floors” [7]. The topological field of the event may be contrasted with that of conceptual representations of space. The latter may be characterized as the dominant space which tailors the signifying system in service of the dominant mode of production, thereby determining the intellectual consciousness of space. In architectural

theory and the philosophy of space, there has arisen a critique of the tendency of modern society to subordinate all lived and perceived space to the concept: “the space of all who identify what is lived and what is perceived with what is conceived” [8]. The space of the event, on the other hand, is a space that hovers between the virtual and the actual, not as two separate spaces, like two rooms in a house, but as two elements of lived space, lived with the imaginative and cognitive faculties of the mind and the gravity-prone mass of the body. The conceptual and material territories across which we travel, having neither beginning nor end, can only ever be approached from somewhere in the middle. That is to say, there is no singular, omnipresent point of view [9].

The dynamic threshold space is manifest in the novel through the structure of the narrative. There is a discourse in the novel that seeks to circumvent the debilitating identification of a single set of ideas with such large and diverse parts of the world as is contained in the designation “East”. In the East, according to this view, things are done in a certain way and not in any other way. Likewise, by projection, it is said that things are done in a certain way in the “West” and these things are the concern of the inhabitants of that hemisphere. In this highly ideological point of view, the representation of space has become through violence identical to the lived experience of space. Art students of Master Osman’s school and Enishte are skeptical of this view: “an artist should never succumb to hubris of any kind... he should simply paint the way he sees fit rather than troubling over East or West” [10]. Here, the artist operates in and paints a kind of in-between space, much in the same way that Pamuk tells his story as much in terms of the representations of the miniatures and novelistic form as in the threshold spaces between these representations in a space that is always “about to become” something else. This is the space of the event, a space of difference and radical disjunction.

Pamuk’s narrative unfolds by skipping between miniatures, little stories that make a whole, and thus the story crystallizes through the dynamics of movement. One example of this movement between stories concerns Jewish Esther, who functions as a match-maker, messenger and interpreter of the obscure motivations of the book’s characters. Pamuk comments that “as a woman, she can get into the closed-world of other women quickly and as a non-Muslim minority, she can move freely around the city” [11].

But representations themselves involve this threshold as part of an internal dynamic. The tree in Pamuk’s narrative – “I am a Tree” – is both a tree and the meaning of the tree. Despite the tree’s protestations, “I don’t want to be the tree, I want to be the meaning of the tree”, the tree must contain both within itself – the actual and the virtual, the material and the abstract. The threshold element of the flat space of the miniaturist style, always “about to become” another thing, is constituted of materiality and the meaning of that materiality, a constitutive process known in the literary tradition as “metamorphosis”.

The fluidity of space in Pamuk stems from the necessity of the materiality of representation and may be opposed to the view that denies the symbolic form its elemental provenance, thus sacrificing immanence to pure transcendental being, an intellectual move which if followed through methodically would result in the disappearance of the world, disappearance into pure representations, like East and West, for example. At the outset, we discussed Orhan Pamuk’s “westernized” identity. In August 1998, *The Guardian* caricaturist drew him with a fez on his head, as a writer from the Orient [12]. Does Pamuk belong to the house of East or house of West? For me, Pamuk is more of a mediator of spaces, like Esther in *My Name is Red*, freely wandering both in the space of east and in the space of west.

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ance and support throughout this research. I would also like to point out that a longer version of this article will be published in a forthcoming book titled *Mediations in Cultural Spaces: Structure, Sign, Body* [13].

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■ Recent Publications and Presentations (July - September 2007) ■

■ Journal Publications (ISI) ■

The journal publications presented are limited to those that are listed in Arts & Humanities Citation Index (A&HCI), Science Citation Index Expanded (SCI-Expanded), or Social Sciences Citation Index (SSCI). A search was performed on December 25, 2007 to automatically extract the indexed journal articles from ISI Web of Science®. The articles included in the list that follows have at least one author with EMU affiliation.

R. P. Agarwal, S. Djebali, T. Moussaoui, O. G. Mustafa, and Y. V. Rogovchenko, "On the asymptotic behavior of solutions to nonlinear ordinary differential equations," *Asymptotic Analysis* **54**(1-2), 1-50 (2007).

F. Bilen, Z. Csizmadia, and T. Illes, "Anstreicher-Terlaky type monotonic simplex algorithms for linear feasibility problems," *Optimization Methods & Software* **22**(4), 679-695 (2007).

D. S. Daoud and I. Caltinoglu, "Overlapping Schwarz wave-form relaxation method for the solution of the reaction-diffusion equation," *Journal of Mathematical Analysis and Applications* **333**(2), 1153-1164 (2007).

O. Dincyurek and O. O. Turker, "Learning from traditional built environment of Cyprus: Re-interpretation of the contextual values," *Building and Environment* **42**(9), 3384-3392 (2007).

N. Doratli, S. O. Hoskara, B. O. Vehbi, and M. Fasli, "Revitalizing a declining historic urban quarter - The walled city of Famagusta, north Cyprus," *Journal of Architectural and Planning Research* **24**(1), 65-88 (2007).

M. Fehlmann, "As Greek as it gets: British attempts to recreate the Parthenon," *Rethinking History* **11**(3), 353-377 (2007).

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M. Islamoglu and J. Liebenau, "Information technology, transaction costs and governance structures: integrating an institutional approach," *Journal of Information Technology* **22**(3), 275-283 (2007).

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R. Sakthivel, N. I. Mahmudov, and J. H. Kim, "Approximate controllability of nonlinear impulsive differential systems," *Reports on Mathematical Physics* **60**(1), 85-96 (2007).

■ Conference Papers and Presentations ■

The following list of conference papers and presentations may not be comprehensive as the information presented here has been put together based on e-mails sent to the newsletter staff by EMU researchers before December 25, 2007.

L. B. Y. Aldabbagh, M. Sharifpur, and M. Zamani, "Experimental Study of Free Convection from a Vertical Flat Plate in Porous Media," in *Proceedings of the 3rd International Conference on Diffusion in Solids and Liquids (DSL 2007)*, Special Session – Heat and Mass Transfer in Porous Media, Algarve, Portugal, July 2007.

R. A. Aliev, A. V. Alizadeh, and R. R. Aliev, "Fuzzy stability and its applications," in *Proceedings of the 4th International Conference on Soft Computing, Computing with Words and Perceptions in System Analysis, Decision*

and Control (ICSCCW 2007), pp. 41-55, Antalya, Turkey, August 2007.

R. R. Aliev and M. T. Babagil, "Supply chain management in cement production," in *Proceedings of the 4th International Conference on Soft Computing, Computing with Words and Perceptions in System Analysis, Decision and Control (ICSCCW 2007)*, pp. 90-98, Antalya, Turkey, August 2007.

R. R. Aliev, M. T. Babagil, and B. Guirimov, "Plant production and distribution optimization using differential evaluation (DE) optimization technique," in *Proceedings of the 4th International Conference on Soft Computing, Computing with Words and Perceptions in System Analysis, Decision and Control (ICSCCW 2007)*, pp. 251-258, Antalya, Turkey, August 2007.

H. Amca and R. Kansoy, "A Mobile Telephone Based, Secure Micro-Payment Technology Using the Existing ICT Infrastructure," in *Proceedings of the International Conference on Communications and Networking in China (ChinaCom 2007)*, Shanghai, China, August 2007.

H. S. Aybar and M. Sharifpur, "Simplification of Ensemble Averaged Two-Phase Flow with Heat and Mass Transfer Equations for Boiling in a Channel," in *Proceedings of the 3rd International Conference on Diffusion in Solids and Liquids (DSL 2007)*, Special Session – Heat Transfer in Cellular and Composite Materials, Algarve, Portugal, July 2007.

M. T. Babagil, R. R. Aliev, and B. Guirimov, "Forecasting of cement production volumes on the basis of fuzzy recurrent neural network," in *Proceedings of the 4th International Conference on Soft Computing, Computing with Words and Perceptions in System Analysis, Decision and Control (ICSCCW 2007)*, pp. 148-154, Antalya, Turkey, August 2007.

A. E. Bashirov, and S. F. Ertürk, "Riccati equations arising in filtering theory," Equadiff07, Vienna, Austria, August 2007.

R. Bashirov, "On admissibility of permutations to hybrid optical interconnection networks with minimum number of stages," in *Proceedings of 4th International Conference on Soft Computing, Computing with Words and Perceptions in System Analysis, Decision and Control (ICSCCW 2007)*, pp.

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M. Bodur, "An Adaptive Cross-Entropy Tuning of the PID Control for Robot Manipulators," in *Proceedings of the World Congress on Engineering (WCE 2007)*, International Conference of Computational Intelligence and Intelligent Systems (ICCIIS'07), Imperial College, London, UK, July 2007 [Selected as 'Best Paper'].

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K. Y. Degtiarev, "Modified time-invariant fuzzy time series forecasting model based on two-phase data processing and K-means clustering," in *Proceedings of the 4th International Conference on Soft Computing, Computing with Words and Perceptions in System Analysis, Decision and Control (ICSCCW 2007)*, pp. 28-40, Antalya, Turkey, August 2007.

M. M. Erginel, "Does Plato Change his Mind about Pleasure and Pain?," International Plato Society Symposium VIII, Dublin, Ireland, July 2007.

S. Ilic, "Ottoman-Turkish Commentaries on Rumi's Masnavi and the Lost Commentary of Sudi Bosnavi," Wondrous Words: The Poetic Mastery of Jalal al-Din Rumi, British Museum, London, UK, September 2007.

S. Ilic, "The Concept of Sainthood in the Unpublished Preambular Chapter of the Vilayetname-i Otman Baba," XXX Deutscher Orientalistentag, Freiburg, Germany, September 2007.

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