

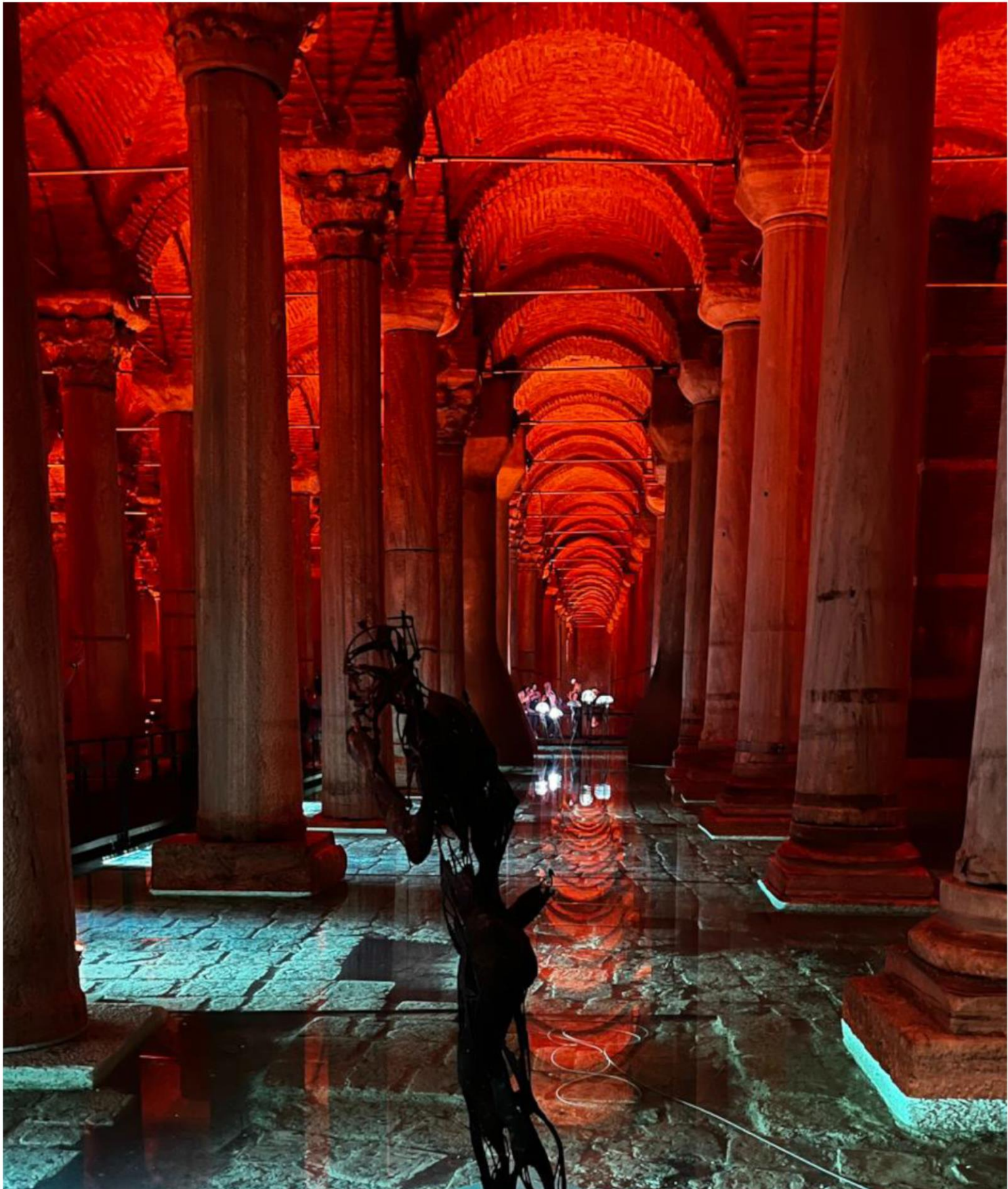


# JOURNAL OF ARCHITECTURAL SCIENCES AND APPLICATIONS

e-ISSN:2548-0170

2023 volume 8, issue 1

J A S A



**Basilica Cistern, İstanbul**



## EDITORIAL BOARD

### Editor in Chief

Atila GÜL

### Areas of Expertise

Landscape Architecture

### Co-Editors

Mert ÇAKIR

Landscape Architecture

Ümit ARPACIOĞLU

Architecture

### Section Editors

Aybike Ayfer KARADAĞ

Landscape Architecture

E. Seda ARSLAN

Landscape Architecture

Hayriye Hale KOZLU

Architecture

M. Bihter BİNGÜL BULUT

Landscape Architecture

Mert ÇAKIR

Landscape Architecture

Mohammad Arif KAMAL

Architecture

Niyazi Uğur KOÇKAL

Civil Engineering

Öner DEMİREL

Landscape Architecture

Şirin Gülçen EREN

City and Regional Planning

Ümit ARPACIOĞLU

Architecture

Vibhavari JANHI

Interior Architecture

### Publishing Editors

Mert ÇAKIR

Landscape Architecture

Gizem DİNÇ

Landscape Architecture

### Literary, Language and Layout Editors

Halime GÖZLÜKAYA

City and Regional Planning

İskender Emre GÜL

Civil Engineering

Pelin FIRAT ÖRS

Architecture

Sibel AKTEN

Landscape Architecture

### English Language Editor

Elif TOKDEMİR DEMİREL

Translation and Interpretation

### Statistics Editor

Yılmaz ÇATAL

### Areas of Expertise

Forest Engineering



*Journal of Architectural Sciences and Applications*

(JASA)

2023, 8 (1)

e-ISSN: 2548-0170

<https://dergipark.org.tr/en/pub/mbud>

<b>Index Editor</b>	<b>Areas of Expertise</b>
Orhan ALAV	Information Management

<b>Cover Design</b>	<b>Areas of Expertise</b>
Gizem DİNÇ	Landscape Architecture

<b>Secretary</b>	<b>Areas of Expertise</b>
İskender Emre GÜL	Civil Engineering
Hatice Eda GÜL	Architecture



*Journal of Architectural Sciences and Applications*

(JASA)

2023, 8 (1)

e-ISSN: 2548-0170

<https://dergipark.org.tr/en/pub/mbud>

---

#### CONTACT INFORMATION

**Journal Owner:** Atila GÜL (atilagul@sdu.edu.tr)

Suleyman Demirel University  
Department of Landscape Architecture, 32260, Isparta/Türkiye.

**Phone:** +90 (246) 211 3846

[dergipark.org.tr/tr/pub/mbud](http://dergipark.org.tr/tr/pub/mbud)

[mbuddergi@gmail.com](mailto:mbuddergi@gmail.com) / [atilagul@sdu.edu.tr](mailto:atilagul@sdu.edu.tr)



@mbuddergi



@mbuddergi

**Publisher:** Suleyman Demirel University (SDU) (<https://w3.sdu.edu.tr/>)

---

(Authors are responsible for the copyright of figures, pictures and images in the articles, the content of the articles, the accuracy of the references and citations, and the suggested ideas.)

---





## **ABOUT THE JOURNAL**

- Journal of Architectural Sciences and Applications (JASA), which started its publication life in 2016, is an international, scientific, and peer-reviewed e-journal and open access.
  - The literary languages of the journal are English and Turkish. JASA accepts original English research articles in routine issues. Both English and Turkish research and review articles are accepted in special issues.
  - JASA is published twice a year (in July and December).
  - Authors are not charged for articles submitted to the journal.
  - The journal uses double-blind peer review, which means that both the reviewer and author identities are concealed from the reviewers, and vice versa, throughout the review process.
  - All papers published in the journal comply with the provisions of the "YÖK Scientific Research and Publication Ethics Directive" and the relevant legislation and ethical principles published by the Committee on Publication Ethics (COPE). It is not possible for publications that started in 2020 to be published without "Ethics Committee Approval".
  - As of 2020, JASA has started to be indexed in the "TR Index" Science database and the Art Index (Art Research Database, EBSCO), which is the field index. JASA is also indexed in some national and international indexes.
-



# Journal of Architectural Sciences and Applications





























(JASA)

2023, 8 (1)

e-ISSN: 2548-0170

<https://dergipark.org.tr/en/pub/mbud>

## INDEXED IN

TR Dizin		Art Index (Art Research Database, EBSCO)	
Directory of Open Access Journals (DOAJ)		Scope Database	
Bielefeld Academic Search Engine (BASE)		Google Scholar	
ASOS Indeks		Open Academic Journals Index	
CAB Abstracts		ScienceGate	
WorldCat		Journament	
Idealonline		Acarindex	
International Institute of Organized Research (I2OR)		Architectural Periodicals Database	
Scilit		Semantic Scholar	
Türkiye Turizm Dizini		Cosmos	
Academic Journal Index		Index of Academic Documents [IAD]	
Information Matrix For The Analysis of Journal		SOBIAD	
Online Journal Platform and Indexing Association (OJOP)		The Directory of Research Journal Indexing (DRJI)	
EuroPub		Bilgindex	



JASA is licensed under Creative Commons Attribution-Non Commercial-Share Alike 4.0 International License



## SCIENTIFIC ADVISORY BOARD

*The scientific advisory board is listed in alphabetical order after title.*

	Name and Surname	Affiliation
1	<b>Prof. Dr. Andjela JAKŠIĆ STOJANOVIĆ</b>	Univerzitet Mediteran Podgorica, Montenegro.
2	<b>Prof. Dr. Banu APAYDIN</b>	Istanbul Okan University, Department of Interior Architecture and Environmental Design, Istanbul/Türkiye.
3	<b>Prof. Dr. Banu KURDOĞLU</b>	Karadeniz Technical University, Faculty of Forestry, Department of Landscape Architecture, Trabzon/Türkiye.
4	<b>Prof. Dr. Barbara ŹARSKA</b>	Warsaw University, Poland.
5	<b>Prof. Dr. Bülent YILMAZ</b>	İnönü University, Faculty of Fine Arts and Design, Department of Landscape Architecture, Malatya/Türkiye.
6	<b>Prof. Dr. Cengiz YÜCEDAĞ</b>	Mehmet Akif University, Faculty of Engineer and Architecture, Department of Landscape Architecture, Burdur/Türkiye.
7	<b>Prof. Dr. Claudia JUROWSKI</b>	Northern Arizona University, USA.
8	<b>Prof. Dr. Gonca BÜYÜKMIHÇI</b>	Erciyes University, Faculty of Architecture, Department of Architecture, Kayseri/Türkiye.
9	<b>Prof. Dr. Gülçöhre MEMMEDOVA</b>	Azerbaijan Architecture and Construction University, Baku/Azerbaijan.
11	<b>Prof. Dr. S. Gül GÜNEŞ</b>	Selçuk University, Faculty of Tourism, Department of Recreation Management, Konya/Türkiye
12	<b>Prof. Dr. Hasan YILMAZ</b>	Atatürk University, Faculty of Architecture ve Design, Department of Architecture, Erzurum/Türkiye.
13	<b>Prof. Dr. İlkay Maşat ÖZDEMİR</b>	Karadeniz Technical University, Faculty of Architecture, Department of Architecture, Trabzon/ Türkiye.
14	<b>Prof. Dr. Mehmet TUNCER</b>	Çankaya University, Faculty of Architecture, Department of City and Regional Planning, Ankara/Türkiye.
15	<b>Prof. Dr. Murat AKTEN</b>	Süleyman Demirel University, Faculty of Architecture, Department of Landscape Architecture, Isparta/Türkiye.
16	<b>Prof. Dr. Murat ZENGİN</b>	Pamukkale University, Faculty of Architecture ve Design, Department of Architecture, Denizli/Türkiye.
17	<b>Prof. Dr. Nilay COŞGUN</b>	Gebze Technical University, Faculty of Architecture, Department of Architecture, Kocaeli/Türkiye.
18	<b>Prof. Dr. Nilgün GÖRER TAMER</b>	Gazi University, Department of City and Regional Planning, Ankara/Türkiye.



19	<b>Prof. Dr. Piyush SHARMA</b>	Amity University, India.
20	<b>Prof. Dr. S. Gül GÜNEŞ</b>	Selçuk University, Faculty of Tourism, Department of Recreation Management, Konya/Türkiye.
21	<b>Prof. Dr. Seema Mehra PARIHAR</b>	Department of Geography, Kirori Mal College, University of Delhi, India.
22	<b>Prof. Dr. Sevgi YILMAZ</b>	Atatürk University, Faculty of Architecture ve Design, Department of Architecture, Erzurum/Türkiye.
23	<b>Prof. Dr. Şemsettin KILINÇARSLAN</b>	Süleyman Demirel University, Faculty of Engineer, Department of Civil Engineering, Isparta/Türkiye.
25	<b>Prof. Dr. Şükran ŞAHİN</b>	Ankara University, Faculty of Agriculture, Department of Landscape Architecture, Ankara/Türkiye.
26	<b>Prof. Dr. Swetha MADHUSUDANAN</b>	MGR University, School of Architecture, Chennai, India.
27	<b>Assoc. Prof. Dr. Isidora KARAN</b>	University of Banja Luka, Faculty of Architecture, Civil Engineering and Geodesy, Bosnia and Herzegovina.
28	<b>Assoc. Prof. Dr. Osman ATTMANN</b>	University of Colorado Denver, College of Architecture and Planning, Department of Architecture, USA.
29	<b>Assoc. Prof. Dr. Taner ÖZDİL</b>	The University of Texas, College of Architecture, Planning and Landscape Architecture, USA.
30	<b>Assist. Prof. Nermeen Adnan DALGAMONİ</b>	Jordan University of Science and Technology, Department of City Planning and Design, Jordan.
31	<b>Assist. Prof. Dr. Sadia FAROOQ</b>	University of Home Economics, Pakistan.
32	<b>Dr. Erdiñ ÇAKMAK</b>	Breda University of Applied Sciences, Netherlands.
33	<b>Dr. Floriana ZUCARO</b>	The University of Naples Federico II, Department of Civil, Architectural and Environmental Engineering, Italy.





CONTENTS

Research Articles

Pages

1. Developing Dynamic and Flexible Façade Design with Fractal Geometry

(Fraktal Geometri ile Dinamik ve Esnek Cephe Tasarımı Geliştirilmesi)

Mehmet Akif YILDIZ, Merve ERTOSUN YILDIZ & Figen BEYHAN..... 1-14

2. Using Fuzzy Logic Based Decision Support Systems for New Function Selection In Structures

(Yapılarda Yeni İşlev Seçimi İçin Bulanık Mantık Tabanlı Karar Destek Sistemlerinin Kullanımı)

Didem BARAN ERGÜL, Ayşe Berika VAROL MALKOÇOĞLU & Seden ACUN ÖZGÜNLER..... 15-24

3. Investigation of Methods and Studies for Determining the Material Selection Criteria with Low Environmental Impact in Hotel Buildings

(Otel Yapılarında Çevresel Etkisi Düşük Malzeme Seçim Kriterlerinin Belirlenmesine Yönelik Yöntem ve Çalışmaların İncelenmesi)

Nil KOKULU & Seden ACUN ÖZGÜNLER..... 25-37

4. Building from Scrap: Computational Design and Robotic Fabrication Strategies for Spatial Reciprocal Structures from Plate-shaped Wooden Production Waste

(Atık Kullanarak İnşa Etmek: Levha Şeklindeki Ahşap Üretim Atıklarından Üretilmiş Uzaysal Mütakabil Strüktürler İçin Hesaplamalı Tasarım ve Robotik İmalat Stratejileri)

Edyta AUGUSTYNOWICZ & Nikita AIGNER..... 38-53

5. Concept of Co-Living and its Application: The Case Study of Padova

(Birlikte Barınma Kavramı ve Uygulaması: Padova Örneği)

Ekin ELİNÇ, Hüseyin Samet AŞIKKUTLU & Latif Gürkan KAYA..... 54-66

6. Social Sustainability and Re-Functioning of Cultural Heritage: Seljuk Bath and Ali Aydın House

(Kültürel Mirasın Sosyal Sürdürülebilirliği ve Yeniden İşlevlendirilmesi: Selçuk Hamamı ve Ali Aydın Evi)

Zuhal KAYNAKCI ELİNÇ, Ayşe Yaren SÖĞÜT & Şebnem ERTAŞ BEŞİR..... 67-84

7. Wood-Based Hybrid Construction Technology

(Ahşap Esaslı Hibrit Yapı Teknolojisi)

Rüveyda BARIŞ & N. Volkan GÜR..... 85-99



**8. Wood Damages and Improvement in Rural Mosques: Ordu Mosque**

*(Kırsal Camilerde Ahşap Malzeme Hasarları ve İyileştirilmesi: Ordu Camii)*

**Şengül YALÇINKAYA..... 100-111**

**9. Determining the Climate Future Projection of Erzurum City with the UrbClim Model**

*(UrbClim Modeli ile Erzurum Kentinin İklim Gelecek Projeksiyonunun Belirlenmesi)*

**Sevgi YILMAZ, Cihad BİLGE & Mehmet Akif IRMAK..... 112-122**

**10. Indoor Environmental Quality in Residential Care Facilities: A Scoping Review with Design Focus**

*(Kurumsal Yaşlı Bakım Alanlarında İç Mekân Çevre Kalitesi: Tasarım Odaklı Araştırma Makalesi)*

**Arzu CILASUN KUNDURACI, Selin GÜLEROĞLU & Zeynep SEVİNÇ KARCI..... 123-145**

**11. The Place of Hacı Bayram Veli Mosque and its Surroundings in Ankara City Identity**

*(Hacı Bayram Veli Camisi ve Çevresinin Ankara Kent Kimliğindeki Yeri)*

**Filiz KARAKUŞ & Ekrem Bahadır ÇALIŞKAN..... 146-160**

**12. A Study of the Metro and Housing Value Interaction with Hedonic Price Model: Comparison of Ankara Batıkent and Koru Metro Stations**

*(Metro ve Konut Değeri Etkileşiminin Hedonik Fiyat Modeli ile İncelenmesi: Ankara Batıkent ve Koru Metro İstasyonlarının Karşılaştırılması)*

**Fatma ERDOĞANARAS, Kübra CİHANGİR ÇAMUR & Gülsel SATOĞLU..... 161-177**

**13. Between Virtual Space and Real Space: Transition Spaces**

*(Sanal Mekân ve Gerçek Mekân Ara Kesitinde: Geçiş Mekanlar)*

**İsmail Emre KAVUT & Betül İrem TARAKÇI..... 178-187**

**14. Investigation of Traditional Features' Effect on Modernist Designs in the Framework of Environmental Sustainability**

*(Konutlarda Geleneksel Özelliklerin Modernist Tasarımlara Etkisinin Çevresel Sürdürülebilirlik Çerçevesinde İncelenmesi)*

**Seray COŞKUN & Elif ÇELEBİ KARAKÖK..... 188-199**

**15. Examination of Elderly and Disabled Tourism Buildings in Terms of the Concept of Sustainability**

*(İleri Yaş ve Engelli Turizmi Yapılarının Sürdürülebilirlik Kavramı Özelinde İrdelenmesi)*

**Ayşe KÖSE & Ruşen YAMAÇLI..... 200-222**



**16. Effects of Auditory and Visual Setup on the Perception of Space**

*(İşitsel ve Görsel Kurgunun Mekân Algısı Üzerindeki Etkileri)*

**Aslıhan ARGAN & Ömer ATABEYOĞLU..... 223-246**

**17. Furniture Product Management System: An Evaluation Through the Case of “Chair”**

*(Mobilya Ürün Yönetim Sistemi: “Sandalye” Örneği Üzerinden Bir Değerlendirme)*

**Pınar BAŞBUĞ & Ürün BİÇER..... 247-258**

**18. Interpretation of Prior Design in Furniture Design**

*(Mobilya Tasarımında Öncül Tasarımların Yorumlanması)*

**Funda KURAK AÇICI..... 259-272**

**19. Shopping Center Design in the Context of Generation Z Consumer Perception**

*(Z Kuşağı Tüketim Algısı Bağlamında Alışveriş Merkezi Tasarımı)*

**Reyhan ÇETİN & Serhat ANIKTAR..... 273-289**

**20. A New Approach to the Space Design Process in the Interior Architecture Basic Design Studio**

*(Kamusal Açık Alanlarda Mekân Kalite Kavramının İrdelenmesi: Çanakkale Özgürlük Parkı Örneği)*

**H. Özlem YURTGÜN & Hatice ÇINAR..... 290-300**

**21. Determination of Environmental Indicators in the Context of Sustainable Urbanization: The Case of Türkiye**

*(Sürdürülebilir Kentleşme Bağlamında Çevresel Göstergelerin Belirlenmesi: Türkiye Örneği)*

**Gamze ÇOBAN & Osman UZUN..... 301-314**

**22. Rethinking the Built Environment in the Context of Covid-19 Pandemic: A Critical Review**

*(Covid-19 Salgını Bağlamında Yapılı Çevreyi Yeniden Düşünmek: Eleştirel Bir İnceleme)*

**Kağan GÜNÇE & Damla MISIRLISOY..... 315-325**

**23. The Effect of Neuroscience on the Formation of Biodigital Space**

*(Biodijital Mekân Oluşumunda Nörobilimin Etkisi)*

**Çisem Nur DEMİRCİ & Levent ARIDAĞ..... 326-344**



**24. Life Cycle Assessment of Internal Wall Panels: A Case Study of Sumerbank Kayseri Textile Factory Restoration Process**

*(İç Duvar Panellerinin Yaşam Döngüsü Değerlendirmesi: Sümerbank Kayseri Tekstil Fabrikası Restorasyon Süreci Örneği)*

**Elif ÖZKAYA KIRILMAZ & Buket METİN ..... 345-354**

**25. Analysis of Stone Deterioration on the Facades of Hatuniye Madrasah**

*(Hatuniye Medresesi Cephelelerinde Meydana Gelen Taş Bozunmalarının Analizleri)*

**Ayşe BIÇEN ÇELİK, Şefika ERGİN, Murat DAL & İlhami AY..... 355-369**

**26. Conservation Courses Effects on Architecture Students Conservation Awareness: Analysis of Isparta and Burdur Houses**

*(Koruma Derslerinin Mimarlık Öğrencilerinin Koruma Bilincine Etkileri: Isparta ve Burdur Evleri Üzerinden Analizi)*

**Ayşe Betül GÖKARSLAN & Hilal TUNCER..... 370-384**

**27. Evaluation of Interior Architecture Education Research in the Web of Science Database: Bibliometric and Science Mapping Analysis**

*(Web of Science Veri Tabanındaki İç Mimarlık Eğitimi Araştırmalarının Değerlendirilmesi: Bibliyometrik ve Bilim Haritalama Analizi)*

**Emine Banu BURKUT..... 385-405**

**28. Examining the Effect of Weather Conditions on On-Street Parking Variables**

*(Hava Koşullarının Yol Kenarı Parklanma Değişkenleri Üzerindeki Etkisinin İncelenmesi)*

**Abdullah DEMİR & Ali ÖZ ..... 406-421**

**29. Harvesting the Hidden Value of Vacant Lands: A GIS-Based Approach to Urban Agriculture**

*(Boş Arazilerin Kentsel Tarım için Kullanılması: Kentsel Tarıma CBS Tabanlı Bir Yaklaşım)*

**Hüseyin Berk TÜRKER & Murat AKTEN..... 422-437**

**30. Analysis of Kinetic Disaster Relief Shelters and a Novel Adaptive Shelter Proposal**

*(Kinetik Afet Yardım Barınaklarının Analizi ve Yeni Bir Adaptif Barınak Önerisi)*

**Seda TOSUN & Feray MADEN..... 438-455**



<b>31. Defining the Adaptive Reuse of Traditional Houses for Tourism Purposes Through Multi-Choice Process: Türkiye-Konya/Sille Example</b> <i>(Geleneksel Konutların Turizm Amaçlı Yeniden İşlevlendirilmesinin Çok Seçenekli Süreçle Tanımlanması: Türkiye-Konya/Sille Örneği)</i>	<b>456-475</b>
<b>Şebnem ERTAŞ BEŞİR, Elif SÖNMEZ, İlkey ÖZDEMİR &amp; Funda KURAK AÇICI.....</b>	
<b>32. Re-discussing Architectural Contextualism Through the Competition Project: The Case of Dominique Perrault and Wang Jianguo</b> <i>(Mimari Bağlamsalılığın Yarışma Projesi Üzerinden Yeniden Tartışılması: Dominique Perrault ve Wang Jianguo Örneği)</i>	
<b>Yasemin HEKİMOĞLU.....</b>	<b>476-484</b>
<b>33. Wooden-Pillared Sille Çay Mosque and Its Wooden Elements</b> <i>(Ahşap Direkli Sille Çay Cami ve Ahşap Elemanları)</i>	
<b>Fikret BADEMCİ.....</b>	<b>485-503</b>

