



(Drawing by Kemal Reha Kavvas)

REINTERPRETING TRADITION

Contemporary Insights Towards
Buttressed Houses' Technique

SUPPORTER



INTERNATIONAL NETWORK
FOR TRADITIONAL BUILDING,
ARCHITECTURE & URBANISM

ORGANIZATION



ANTALYA BILIM
UNIVERSITY



AKDENİZ
ASSOCIATION
OF LICENSED
ARCHITECTS

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1. About

1.1. Aim and Extend of The Competition

The primary aim of this international architectural competition is to embrace the traditional building techniques of 'Dügmeli Evler' (Buttoned Houses) of Antalya, Turkey. This competition seeks to integrate the cultural heritage of this unique construction method into contemporary architectural practice, fostering a deeper understanding of vernacular architecture among future architects. Participants will engage in a comprehensive exploration of the buttoned construction system, proposing innovative small-scale designs that blend traditional techniques with contemporary architectural needs and approaches. The competition aims to highlight the sustainability, efficiency, and cultural significance of these traditional practices, encouraging their preservation and adaptation in current and future projects.

This competition is an integral part of the INTBAU Grassroots programme and aims to embrace traditional construction techniques while fostering contemporary

architectural innovations. The INTBAU "Sustainable Building Techniques: A Scholarly Exploration of Historical Practices" seeks to explore the traditional buttoned house construction method and reinterpret it for contemporary use. Initially, participants will engage in a design competition that challenges them to reinterpret the buttoned construction technique. The winning designs will then be constructed, bringing the theoretical concepts to life in a tangible, real-world project. This competition not only celebrates cultural heritage but also actively contributes to its preservation and adaptation for future generations.

The INTBAU project is aligned with UIA Sustainable Development Goals. The competition process supports "Goal 4: Quality Education" by enabling participants to gain in-depth knowledge of sustainable building techniques, merging traditional and contemporary architectural practices, and providing them with the

opportunity to apply this knowledge in the field, thereby contributing to their professional development. The project also supports Goal 11: Sustainable Cities and Communities by integrating the traditional construction technique of the Buttoned Houses, with contemporary needs, aiming to enhance environmental sustainability while preserving the cultural heritage of cities. By participating in INTBAU's project, participants gain experience in sustainable architectural design and implementation, allowing them to use this knowledge and experience in their future projects, thus supporting both Goal 4 and Goal 11.

1.2. About Competition Type

The competition is a single-stage architectural project competition. The official language of the competition is English. It is open to participants from all countries, inviting diverse and innovative contributions worldwide. This international competition aims to explore and reinterpret traditional construction techniques within a contemporary architectural context.



1.3. Vernacular Heritage

Throughout history, the characteristic geographical features of the region have shaped various cultural aspects such as economic structure, traditional architecture and settlement patterns. The region is quite rich in terms of architectural evidence exemplifying traditional and characteristic building practice. Due to the scarcity of written sources, architecture becomes the major source for understanding the historical and cultural context of the region. Today, the architectural tradition that was in use for centuries is no longer practiced; due to the introduction of contemporary building materials and techniques, the original architectural context of the Akseki-lbradı Basin is undergoing a process of degeneration. This historical change which exhibits the use of contemporary materials has occurred especially during the last three decades.

The rural setting is fabricated by the reproduction of the quintessential detail in a variety of circumstances. The constructive logic underlining all operations for

creating human territory is concretized in a particular construction technique which may be called 'timber-reinforced rubble stone masonry with projecting tie-beams'. Although similar traditions may be observed in the neighboring regions of the Mediterranean Anatolia, the composite structure that integrates timber and stone through the creation of the projecting tie-beams (peştivan) is characteristic to the Akseki basin. (Kavas, 2011)

Dügmeli Evler/Buttomed Houses represent a distinctive vernacular heritage of the Akseki-lbradı Basin, in the Mediterranean region of Türkiye, embodying centuries-old wisdom in sustainable building practices. These structures produced in the Mediterranean highlands, are characterized by the use of local materials, such as rubble stones and wooden beams, arranged to create durable and environmentally harmonious buildings. The button elements, small circular wooden components, interlock with the beams, providing structural integrity and a unique aesthetic.





(Photograph by Esin Bölükbaş Dayı)

The traditional settlements are constructed using the dügmeli/buttoned technique which may be defined as ‘timber-reinforced rubble stone masonry with projecting tie-beams’. The projecting tie-beam (düğme/button) is critical for understanding the construction process. While irregular rubble stone units are interlocked without mortar, the system is reinforced, at every 50-60 cm. in its height, with a pair of timber runner-beams (hatıl) on either side of the wall. The runner-beams at the inner and outer faces of the wall are connected by tie-beams (dügmeler/buttons) at intervals of 50-60 cm. This characteristic rubble stone masonry is reinforced by runner-beams (hatıl) and projecting cross-ties (dügmeler/buttons). The beams and “buttons” exhibit the working rhythm of the traditional builder. The rows repeating the same principle facilitate higher constructions.

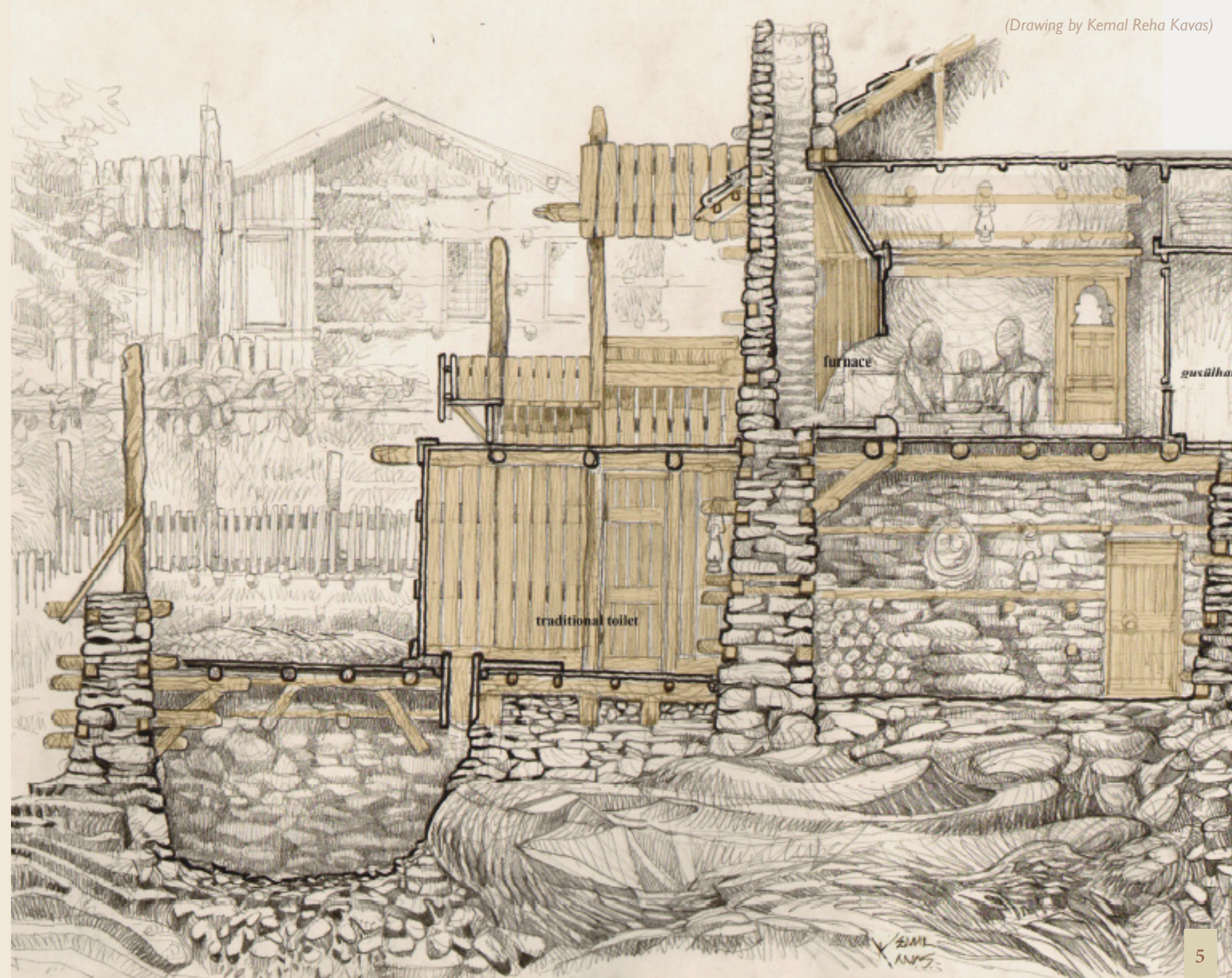
In order to understand the principle of construction, it is necessary to appreciate the role of the projecting tie-beams (peştivan) within the construction process and the later performance of the structure. The masonry is composed of irregular units of rubble stone interlocked into each other

without mortar. This system is reinforced, at every 50-60 cm. in its height, with a pair of timber runner-beams flush with the faces of the wall on either side. These runner-beams are connected to each other by tie-beams (peştivan) at intervals of 50-60 cm. The tie-beams are also called düğme which means “button” in Turkish. The runner-beams and tie-beams are both made up of cedar. Thus the rubble stone masonry is strengthened by inserting at regular intervals rows of runner-beams (hatıl), held in position by projecting cross-ties (peştivan). The placement of the peştivan in several courses coincides with the working rhythm of the builder. Each time the stone masonry reaches a height of approximately 50-60 cm, the builder installs a new series of runner beams connected laterally with peştivans. Each peştivan juts out of the wall around 25 cm. Therefore the arrangement of projecting tie-beams constitutes a built-in scaffolding. This system facilitates the construction of higher structures through the reproduction of new rows repeating the same principle. This traditional structural system has the capacity to produce structures of considerable heights. (Kavas, 2011)

This competition encourages participants to delve into the historical context and construction techniques of the buttoned houses, drawing inspiration from their sustainability, resilience, and adaptability. By understanding and utilizing these vernacular methods, participants will contribute to the preservation and revitalization of this cultural heritage, promoting its relevance and application in contemporary architecture.

References:

Kavas, Kemal Reha (2011). "Patterns of Environmental Coherence in the Rural Architectural Tradition of Ürünlü (Akseki-Ibradı Basin)", *METU JFA (Middle East Technical University Journal of the Faculty of Architecture)*, (28:1), pp. 23-40.



2. Project

2.1. Project Site

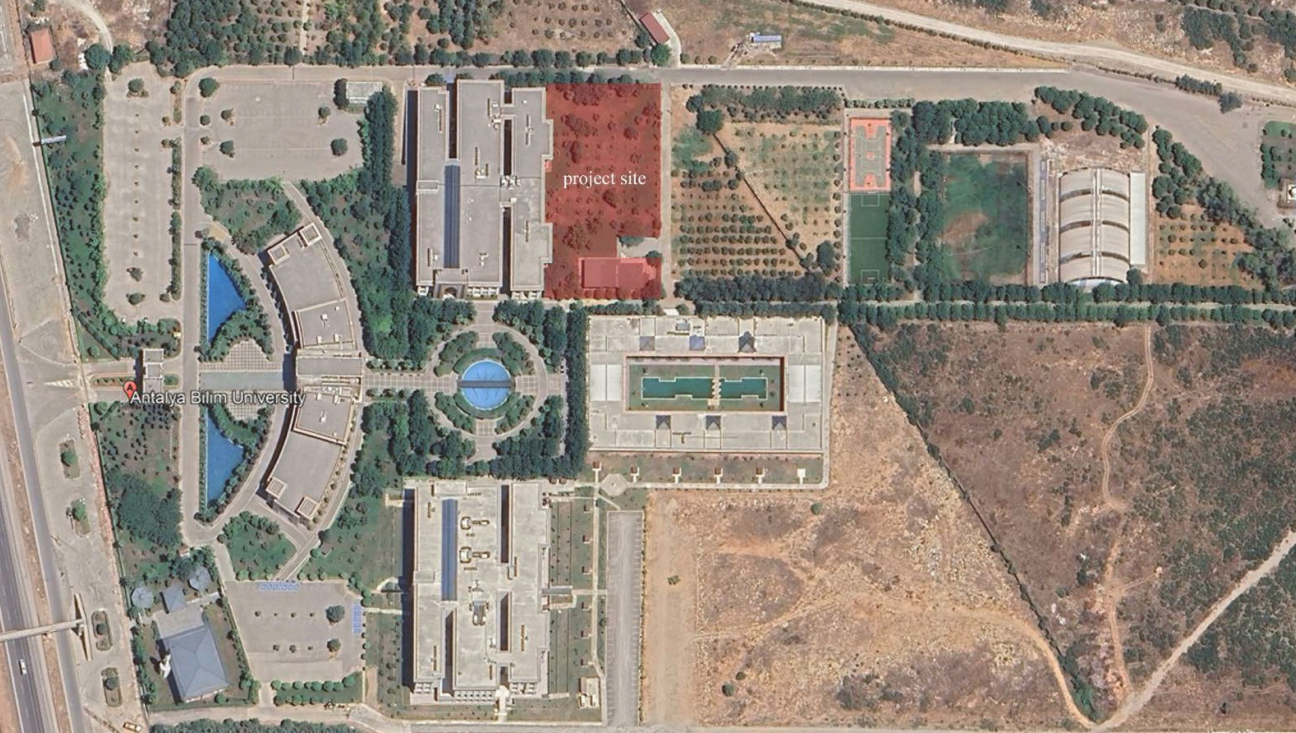
The competition project site will be located on the campus of Antalya Bilim University. Detailed information, including location data, aerial drone videos, photographs, an dwg file site plan is provided in the attachments. Participants are encouraged to review these materials thoroughly to gain a comprehensive understanding of the site. This will enable them to develop contextually appropriate and innovative designs that align with the competition's objectives.



project site







2.2. Design Scope and Requirements

The primary objective of this competition is to design a structure that embraces the traditional “Buttomed Houses” (Dügmeli Evler) building technique. Participants are required to **design an installation** that includes open and semi-open spaces by interpreting the buttoned construction system.

The design should respect the following dimensions:

- Max volume: 250 m³ (semi open - open spaces)

The design should reflect the knowledge of local craftsmanship and traditional aesthetics while providing innovative solutions that meet contemporary needs.

The designed installation should serve as a space for educational, social and cultural events.

The installation will be designed as a configurable space that can be used for the following needs in different time periods:

- Workshop area for different age groups
- Student club area
- Open and semi-open study area
- Social gathering area
- Lecture area
- Exhibition area
- Variations of the program and using scenarios can be defined by the competitors.



3. Submission

3.1. Submission Requirements

- Project report
- Site plan 1/200
- Plans / Sections 1/50
- System Details 1/10 and Construction methodology
- 3d visualizations

The panels must contain all the necessary graphic information to explain the project in the best way (diagrams, sketches, collages, model photos, programs and scenarios, etc.). All kinds of graphic representations will be accepted.

The submissions should be in the metric system.

Participants must submit the following material:

1) One panel [70 x 100 cm]

- File Format: .pdf
- File Name: Registration no (ex. 70358)
- Maximum File Size: 20 Megabytes
- Panels Orientation: Horizontal
- Language: English
- Font Size: Minimum 10 pt

2) Project Report

- File Format: .docx/.doc
- File Name: Registration no-text (ex. 70358 –text)
- Maximum Length: 500 words
- Text Language: English

3.2. Registration and Submission Procedure

The Registration Number with five-digit numbers with no consecutive identical digits (ex. 70358) must be placed in the upper right corner of each panel. The panels must NOT contain any other reference to the identity of the participants (name, office, university, etc).

All documents are to be submitted anonymously. Names, logotypes, symbols or other identifying marks may not appear in any form.

Proposals submitted must be identified using anonymity, which the participants will have to indicate both at the top right of the proposal panel and when registering the submission. Proposal panels must not include any other elements that would make it possible to identify their creators.

If a submission does not comply with these rules, it will be disqualified. Although participants must provide personal data when submitting their proposals, this information will be kept confidential from the panel to maintain the anonymity of the competition.

4. Evaluation Criteria

Submissions should effectively integrate traditional butted construction techniques with contemporary architectural practices.

The design must demonstrate originality and bring an innovative approach to embrace the mentioned technique. Participants are encouraged to address contemporary architectural challenges with creative solutions that respect and enhance the traditional technique. Material choice is to be made by participants.

Submissions will be assessed for;

1. the quality of the architectural approach and creativity,
2. the integration of the project in the site, its functionality,
3. the clarity of the organisation of the programme elements,
4. the quality and flexibility of the proposed spaces,
5. the quality of the aesthetical and architectural expression,
6. the adequacy of the proposed materiality and construction, aspects of environmental and social sustainability, and coherence of the project,
7. the technical feasibility and constructability.



(Photograph by Esin Bölükbaş Dayı)



5. Terms for Participation

- The official language of the competition is English
- The type of competition is a project competition.
- The competition is open to participants from all countries.
- The competition is open to all undergraduates enrolled in a recognized architecture program at an institution/faculty worldwide.
- Individual and team submissions are allowed. Teams can include a maximum of three members.
- All participants must provide proof of student status (e.g., student certificate/transcript) in registration.
- Registration on the website is mandatory and there is no registration fee.
- Submissions must be original work and not previously published or entered in other competitions.
- All entries must adhere to the competition brief and submission guidelines provided on the competition website.
- Anyone working for the supported INTBAU project, Technical Consultant, jury member, or the secretariat, or anyone closely related to them, and anyone involved in organizing the competition, cannot participate in the competition or help competitors.
- To ensure impartial judging, all submissions must be anonymous. Participants must not include their names, affiliations, or any identifying marks on any part of their submission materials. Any breach of anonymity will result in disqualification.
- Participants must ensure that their submissions do not infringe on any third-party intellectual property rights.
- Participants found to be engaging in plagiarism or other forms of academic dishonesty will be disqualified and reported to their respective institutions.

6. Schedule

6.1. Competition Schedule

Announcement
12 DECEMBER 2024

Deadline for Questions
15 JANUARY 2025

Deadline for Answers to the Questions
22 JANUARY 2025

Deadline Submission of Projects
14 MARCH 2025

Announcement of the Results
28 MARCH 2025

Exhibition of the Projects
will be announced

Award Ceremony
will be announced

Construction
will be announced

6.2. Questions and Answers

The answers to all questions will be published in a single document on the dates established in the competition calendar. The competition organizer reserves the right to consolidate and answer similar inquiries together.

During the Q&A period, the competition organizers may post any inquiries and follow-up questions they deem appropriate in the designated section of the website. The formulation of each question will be anonymous and will not include any data that could identify the applicant. Questions that do not meet these requirements will not be accepted, published, or answered.



7. Prizes and Mentions

FIRST PRIZE

1200 EURO

SECOND PRIZE

800 EURO

THIRD PRIZE

400 EURO

MENTIONS

3 x 200 EURO

***Taxes are excluded*

Awarded projects will be published on the website of the competition and INTBAU Grassroots Projects.
Awards will be paid within one month after the announcement.

8. Organizations

8.1. Promoters and Partners



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ANTALYA BILIM UNIVERSITY



AKDENIZ ASSOCIATION
OF LICENSED ARCHITECTS

8.2. Jury

Advisory Jury

- Kemal Reha Kavas
(Prof. Dr. Akdeniz University)
- Ali Olgu Ceylan
(MSc. Architect, Akdeniz Association of
Licensed Architects)
- Funda Alyanak Kaya
(MSc. Architect, Antalya Bilim University)

Jury

- Ayşen Ciravoglu (Head of the Jury)
(Prof. Dr. Yıldız Technical University)
- Ömer Selçuk Baz
(Architect, Yalın Architecture)
- Biś Lisowski
(Architect, Association of Polish Architects)
- Antonio Rivero
(Prof., International Academy of Architecture)
- Alper Gülle
(MSc. Architect, Antalya Bilim University)

Alternate Jury Members

- Sadık Gökhan Ekinci
(Dr. Architect, Akdeniz University)
- Ekrem Bahadır Çalışkan
(Asst. Prof. Dr., Ankara Yıldırım Beyazıt
University)

Rapporteurs

- Merve Artkan
(MSc. Architect, Antalya Bilim University)
- Serim Aygen Kıştın
(MSc. Architect, Antalya Bilim University)
- Zeynep Ceren Durgut
(MSc. Architect, Antalya Bilim University)

8.3. Copyrights

Participants shall grant Antalya Bilim University a non-exclusive, royalty-free license construct, make changes on the project in case of necessity during the construction phase, use, and publish the submitted materials for promotional and academic purposes, including exhibitions, publications, and online media. The organization committee and Antalya Bilim University do not have to assign the participants or winner to take technical and application drawing services. The participants also shall accept that Antalya Bilim University has right to assign a third party to create technical and application drawings required for construction and occupancy. The names of the authors will always be mentioned and their approval will be taken compliant with the project authorship rights provided in Turkish acts and architectural service specifications. After the announcement of the prizes, the construction drawings will be provided by the organizer. At this stage, a technical consultant will be involved in the process, and Antalya Bilim University will be responsible for the construction stage.

8.4. Conflict of Interest

Any disputes that may arise between the Organization Committee and the participants during the period from the announcement of the competition results to the signing of the contract will be resolved under the arbitration of this competition jury. If no resolution is reached through this method, the Antalya Courts shall have jurisdiction over the matter. Competitors are responsible for identifying conflicts of interest that would prohibit them from participating in the competition.

8.5. Contact

□ rtc@antalya.edu.tr
