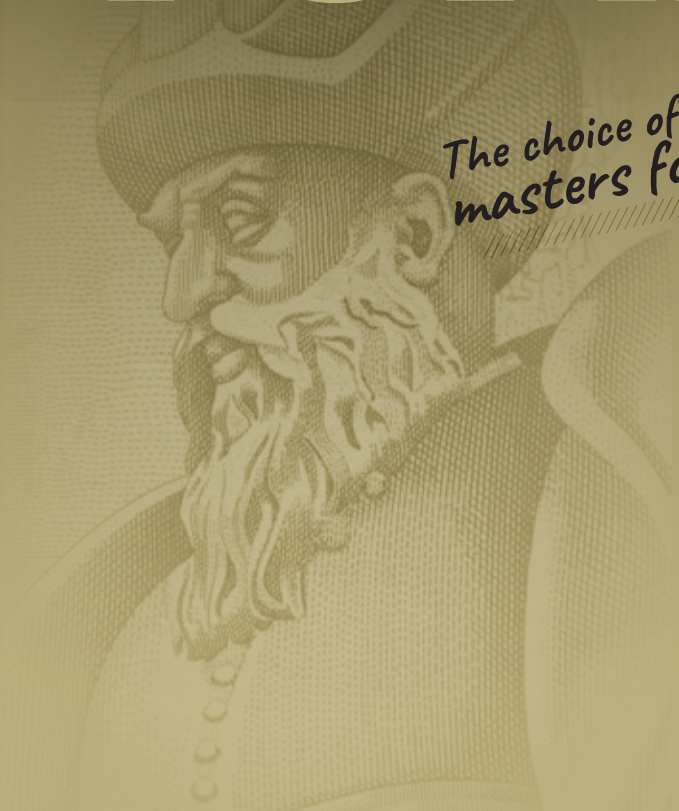
KIVANÇ Group

40 YEARS OF EXPERIENCE

WE CARRY THE TRACES OF THE PAST TO THE FUTURE

MUSSEL STONE

The choice of masters for centuries...



YEARS EXPERIENCE

40

WE CARRY THE TRACES OF THE PAST TO THE FUTURE

Founded in 1980, headquartered in a 2,500 m² building in Istanbul, Kıvanç Group continues its activities in 4 divisions: Mining, Engineering, Safety and Technical Textile.

In Mining division, Kıvanç Group has been operating since 1989 in its 245 hectares of licensed mining fields in Edirne with an 82,000 m² outdoor site and an 880 m² indoor facility. Musselstone (Küfeki Stone) and Silica (Quartz) Sand are extracted and processed. With modern machinery and equipment, Musselstone slabs are cut and prepared in the desired dimensions according to customer demands. Musselstone is frequently used in restoration works of historical monuments and in the decoration of modern buildings. Silica sand is used in drinking and wastewater filtration, construction chemicals, railway traction sand, hippodrome sand, beach sand, and many other applications.

In Engineering division, KOZATEK (a Kıvanç Group company) provides fiberglass-based insulation solutions to minimize heat loss in industrial facilities. We manufacture removable pad systems for turbines, machinery, textile compensators, fire blankets, smoke curtains, and welding blankets. In 1997, it became the first company in Turkey to insulate turbine pipes in energy plants using the "Klevostar Insulation System," featuring a removable pad system.

In Safety division, personal protective clothing against heat and flame, static discharges, arc flashes, molten metals, welding spatters and chainsaw are produced. At our 7,400 m² factory located in Sinop, we manufacture personal protective garments such as firefighter suits, search and rescue clothing, and heat and flame resistant, antistatic protective clothing for workers in refineries, petrochemical plants, pipelines, and storage facilities. We also produce protective garments resistant to molten metal splashes for the iron and steel industry, as well as protective clothing against electrical arcs for electrical generation and transmission lines. Additionally, products such as wildland firefighting clothing, chainsaw protective clothing, pilot coveralls, tanker crew uniforms, and camouflage apparel are manufactured for military and security forces.

Kıvanç Group has ISO 9001, ISO 14001, ISO 45001, and OEKO-TEX STANDARD 100 certifications. All garments are covered by Product Liability Insurance, a first in Türkiye. Our products are exported to over 70 countries worldwide.

In Technical Textile division, AKATEK (a Kıvanç Group company) produces flame-resistant technical yarns and fabrics at its 20,000 m² Antalya facility. AKATEK holds ISO 9001, 14001, 45001, GRS, RCS, OCS, and OEKO-TEX STANDARD 100 certifications, and exports to over 20 countries across Europe and North America. Notably, Akatek produced the fabric for the suit of Türkiye's first astronaut, Alper Gezeravcı.

MUSSELS

THE CORNERSTONE OF HISTORY

STONE

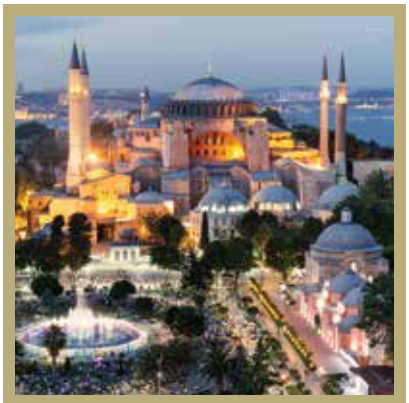
Musselstone is a type of limestone that has fulfilled the structural stone needs of Istanbul and Thrace for centuries. Commonly referred to as 'lumachellic limestone,' 'Mactra limestone,' or 'Bakırköy Stone,' it is primarily composed of marine shells, especially mussel shells. First used during the Roman and Byzantine periods, Musselstone stands out as the only stone known to remain structurally intact for as long as 2000 to 2500 years.

Thanks to its rich fossil content, Musselstone contains no dissolution cavities and features a dense $CaCO_3$ (calcium carbonate) matrix structure. Its high carbonate concentration causes it to effervesce strongly upon contact with acid.

The stone's texture is heavily fossilized, with distinctive calcite characteristics, and it presents a creamy to whitish appearance. Musselstone has always been a primary construction material in the works of Mimar Sinan and other Ottoman architects. It has found a wide and diverse range of applications from roughly processed stone to finely carved and richly ornamented forms. It has been used not only as a structural and exterior façade material, but also in interior spaces, floor coverings, arches, portals, mihrabs, and pulpits.

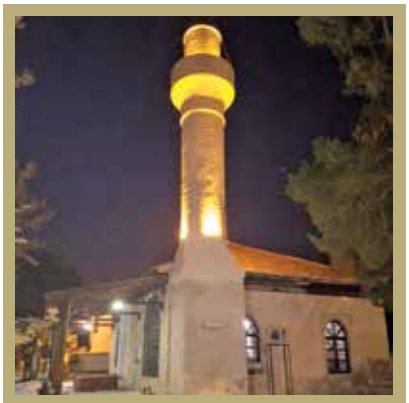
Selimiye Mosque

Valens Aqueduct



Hagia Sophia Museum

Military Hospital Martyr's Cemetery



Kadıiskele Mosque

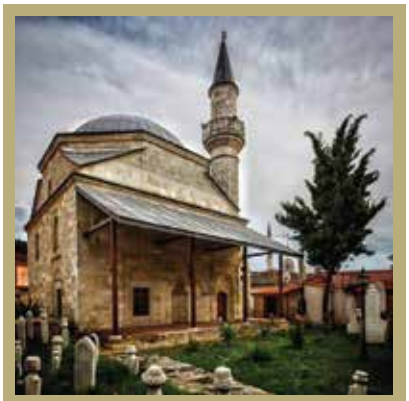
Topkapı Palace

Beylerbeyi Mosque

Darülhadis Mosque

Bulgarian Church

Medical Madrasa



Kuşçu Doğan Mosque

Sokullu Mehmet Pasha

Darulkura Madrasa

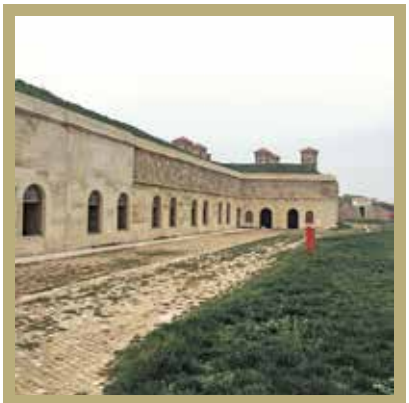
Trakya Faculty Of Theology

Üç Şerefeli Mosque

Yıldız Palace Mosque

Süle Çelebi Mosque

Havsa Sokullu Mosque



Hıdırlık Bastion

Edirne Medical Madrasa

Bigalı Fortress

Seddülbahir Fortress

Çimenlik Fortress

Sulukule Madrasa

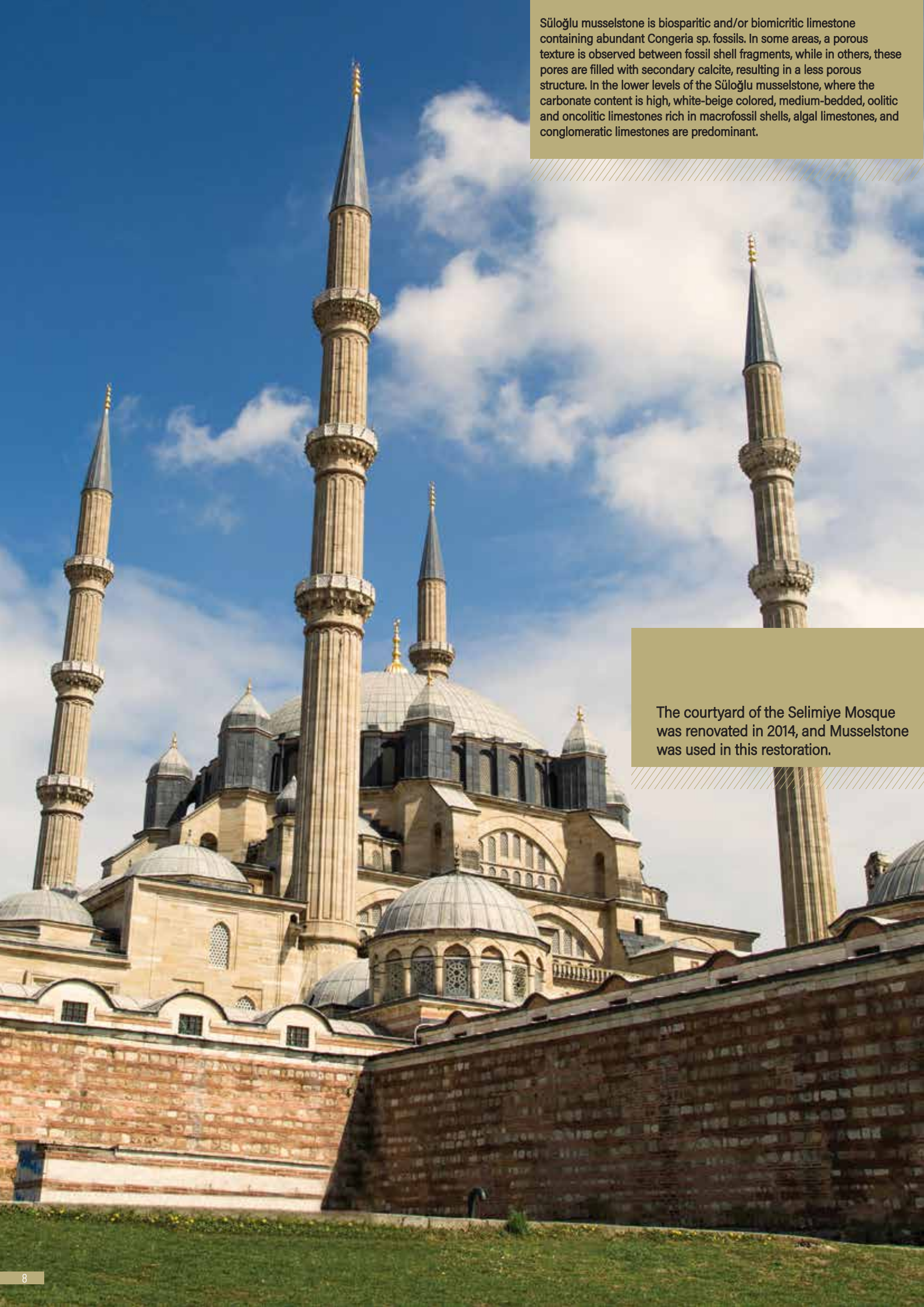
KIVANÇ Group

EDİRNE SÜLOĞLU FACILITY

Since 1989, Kıvanç Group has been providing mining and engineering services at its 82,000 m² facility located in the Süloğlu district of Edirne. We extract land-based silica sand from 245 hectares of licensed mining fields and produce and supply Musselstone, a region specific natural stone, widely used in historical landmarks, including the iconic Selimiye Mosque. According to the geological time scale, this stone belongs to the Eocene epoch, having formed approximately 30 to 35 million years ago.

At its fully equipped facility, Kıvanç Group processes and sizes the natural stones extracted from its mining sites. Musselstone is a light beige, easily workable, and decorative stone. Having been used for centuries as a structural element in various historical buildings, it has become one of the primary materials in modern restoration projects. It is also ideally suited for interior and exterior wall cladding and floor applications.

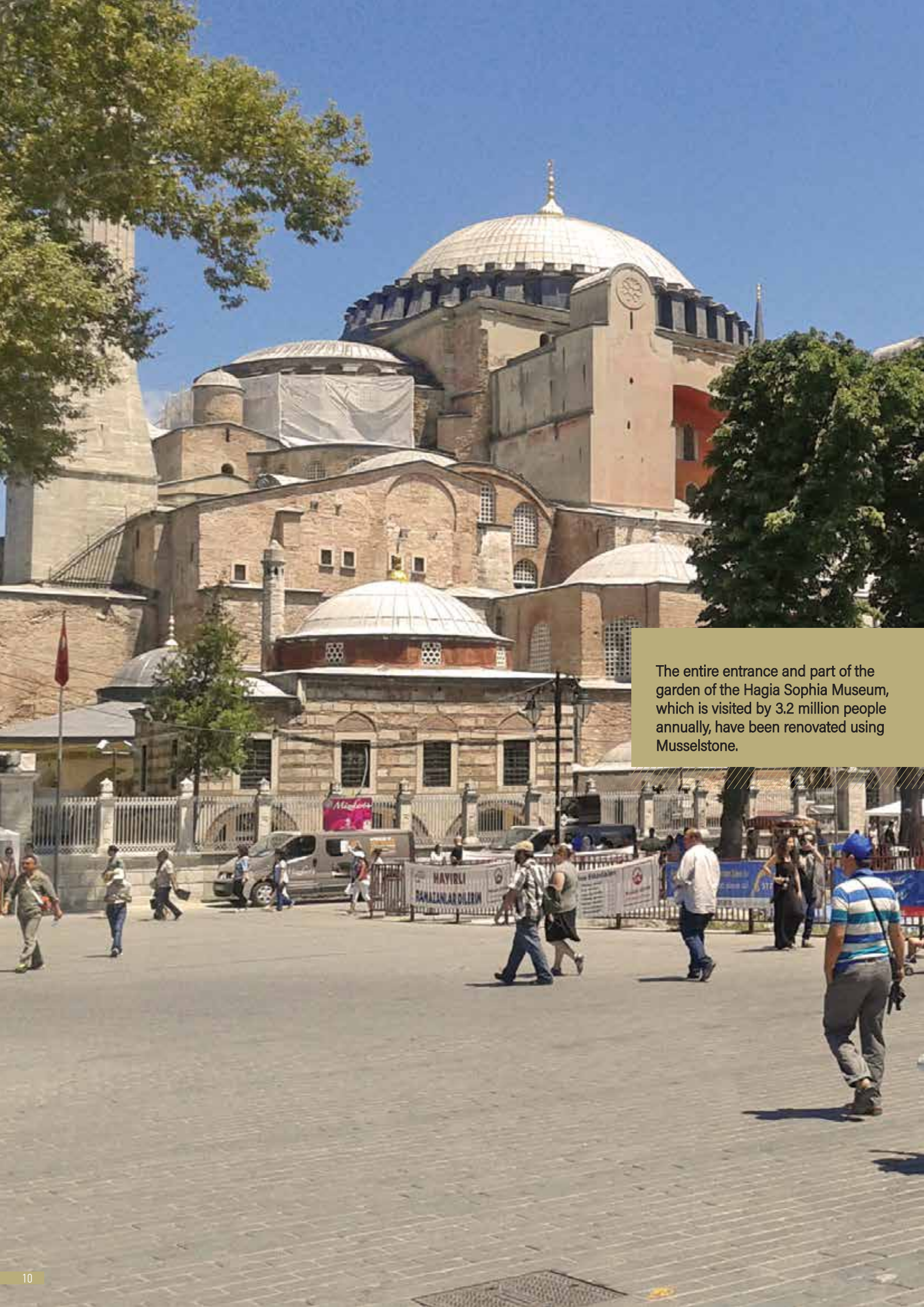
Süloğlu musselstone is biosparitic and/or biomicritic limestone containing abundant Congeria sp. fossils. In some areas, a porous texture is observed between fossil shell fragments, while in others, these pores are filled with secondary calcite, resulting in a less porous structure. In the lower levels of the Süloğlu musselstone, where the carbonate content is high, white-beige colored, medium-bedded, oolitic and oncolitic limestones rich in macrofossil shells, algal limestones, and conglomeratic limestones are predominant.



The courtyard of the Selimiye Mosque was renovated in 2014, and Musselstone was used in this restoration.

SELİMİYE MOSQUE

EDİRNE



The entire entrance and part of the garden of the Hagia Sophia Museum, which is visited by 3.2 million people annually, have been renovated using Musselstone.

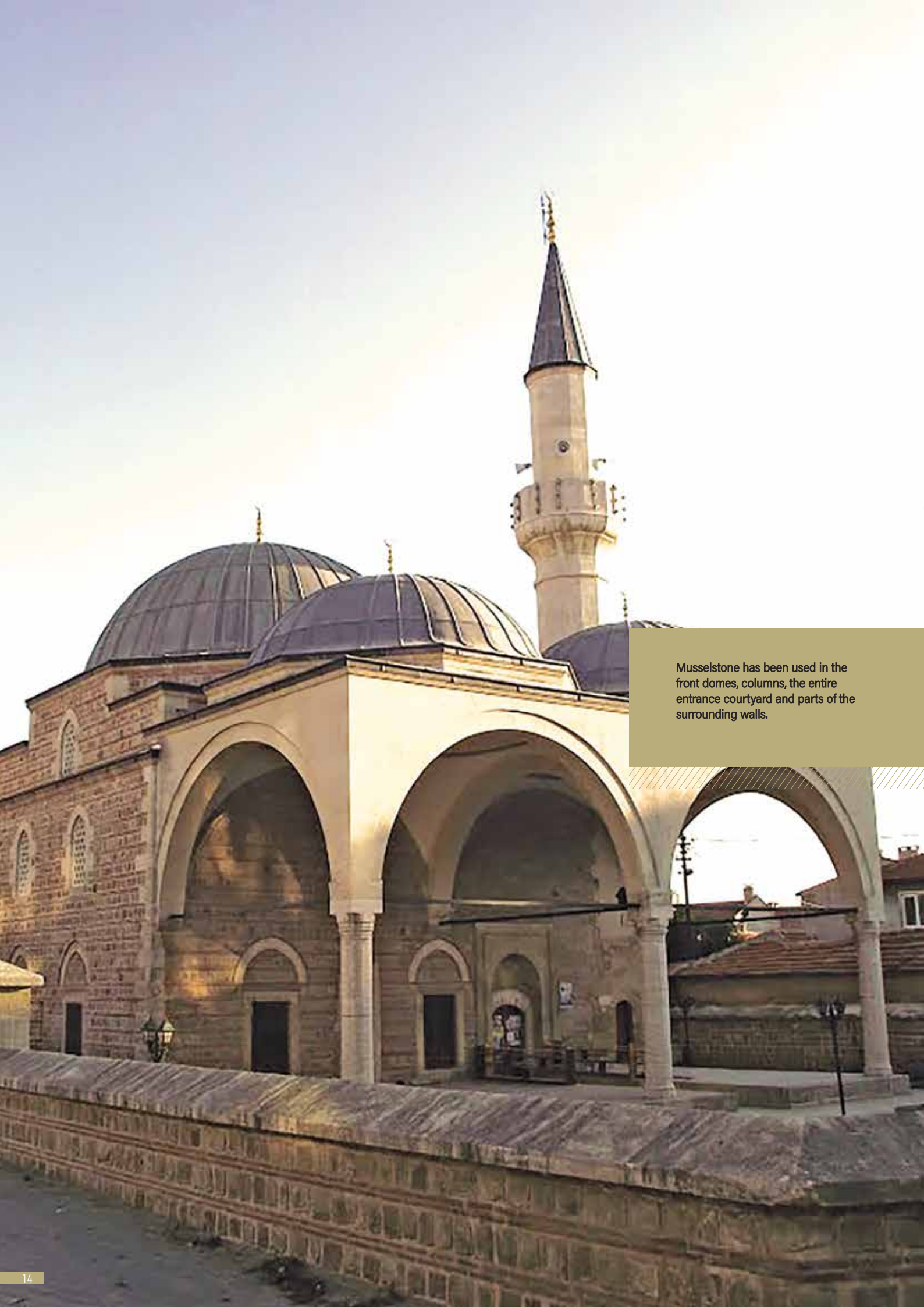
HAGIA SOPHIA
İSTANBUL

Musselstone
is suitable for all types of processing immediately after being extracted from nature.

Musselstone is exposed to many external factors over time and its resistance to abrasion, friction and strength increases over the years.

YILDIZ PALACE MOSQUE

İSTANBUL



Musselstone has been used in the front domes, columns, the entire entrance courtyard and parts of the surrounding walls.

SÜLE ÇELEBİ MOSQUE

EDİRNE

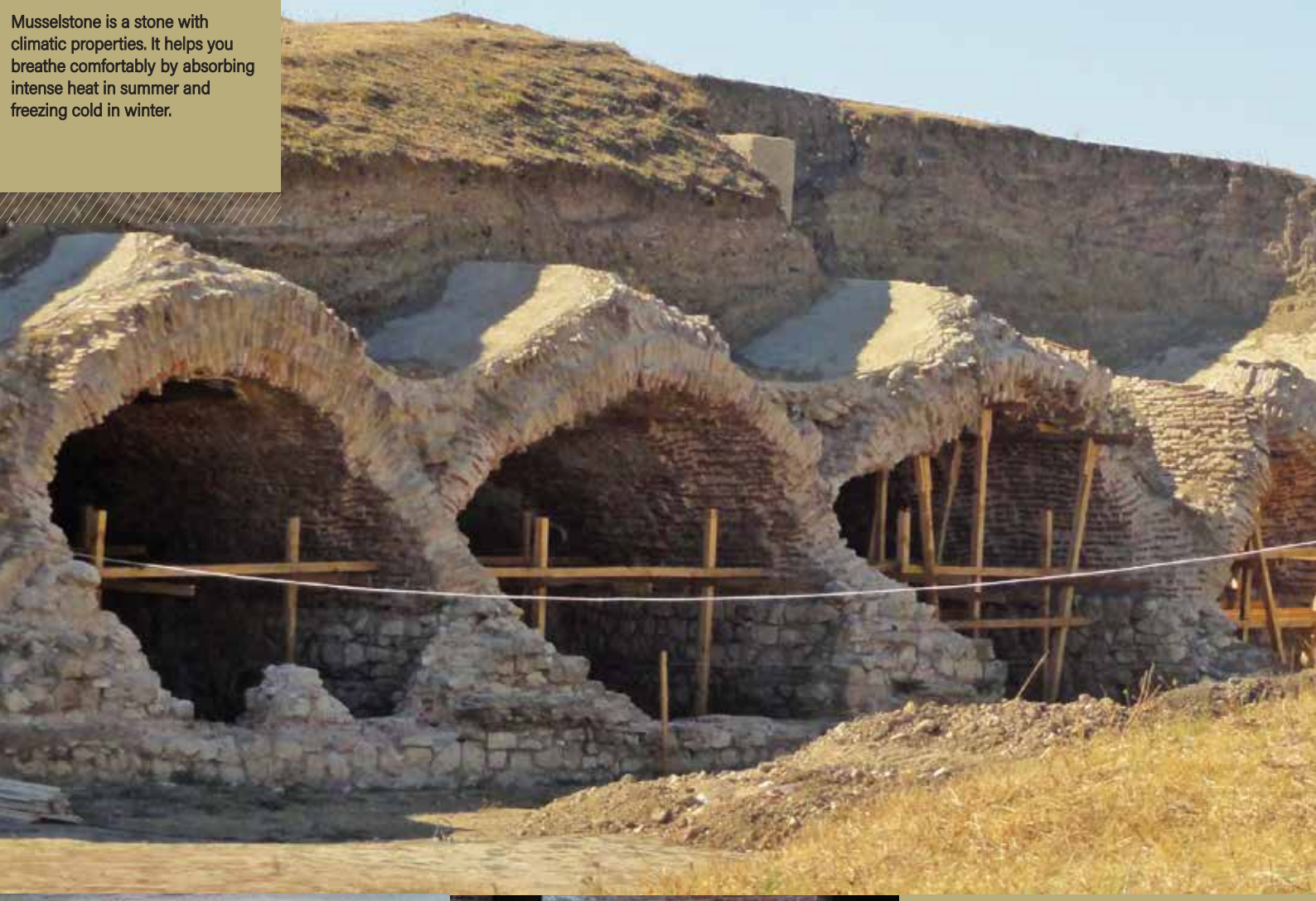
Musselstone gains hardness, durability and strength by absorbing carbon dioxide from the air after coming into contact with the atmosphere.

Musselstone was used throughout the entire restoration of the Havsa Sokollu Mosque.

HAVSA SOKULLU MOSQUE

EDİRNE

Musselstone is a stone with climatic properties. It helps you breathe comfortably by absorbing intense heat in summer and freezing cold in winter.



In the restoration of Hıdırlık Bastion, Musselstone was used for the exterior wall cladding, all passage doors and floor coverings.

HIDIRLIK BASTION
EDİRNE

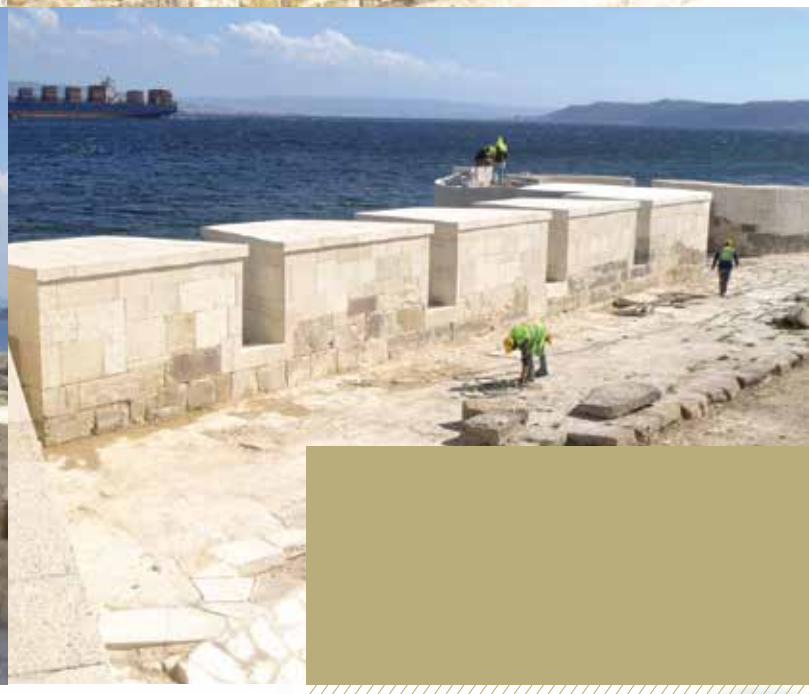
In the restoration works of the Medical Madrasa in Edirne, Musselstone was used on the walls, floor coverings and garden walls.

MEDICAL MADRASA

EDİRNE

Musselstone was used on all exterior walls of the villa, on some of its interior walls, in the fireplace, on the gazebo floor and in the construction of the barbecue.

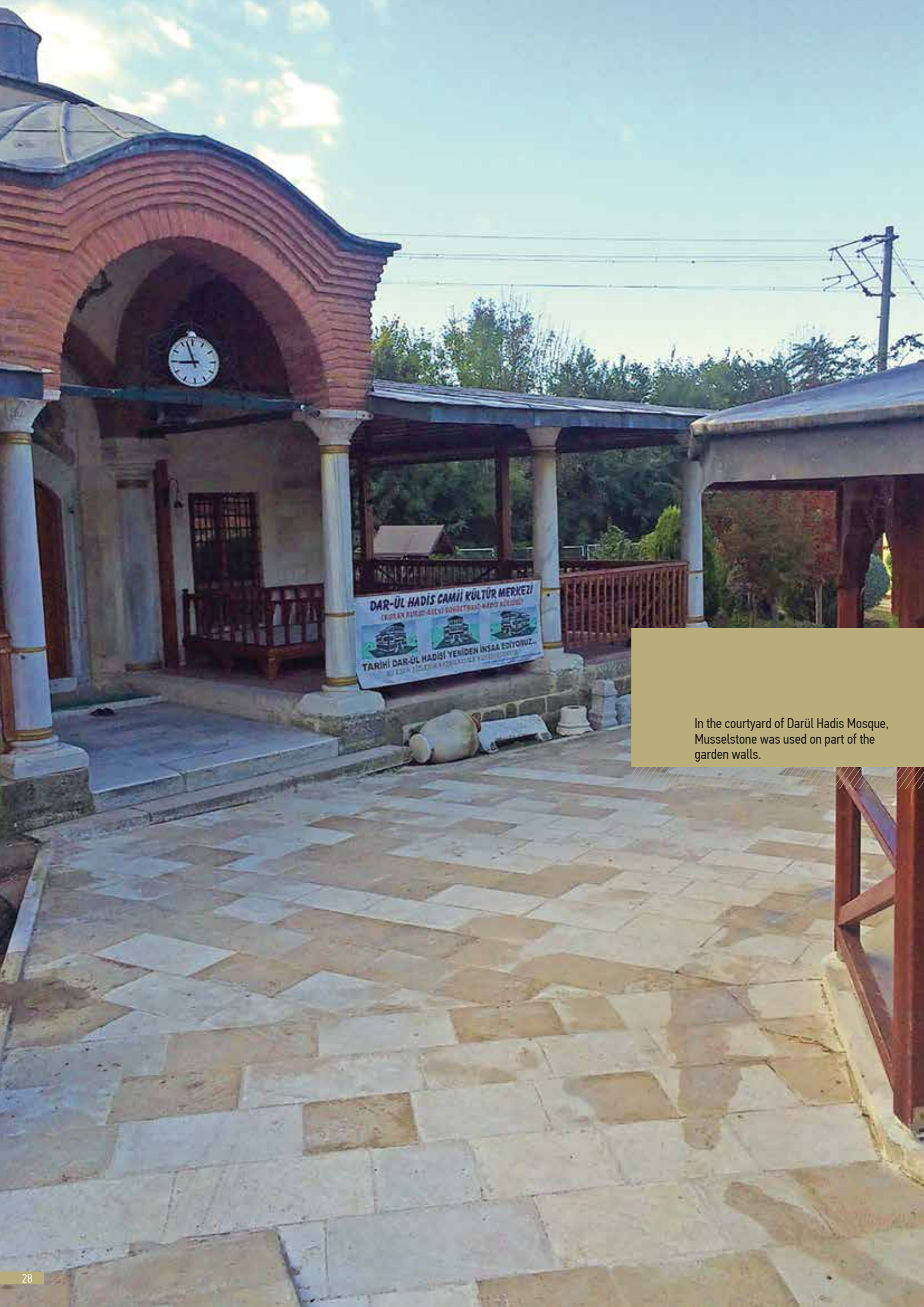
VILLA
EDİRNE



BİGALI CASTLE
ÇANAKKALE

SEDDÜLBAHİR CASTLE

ÇANAKKALE

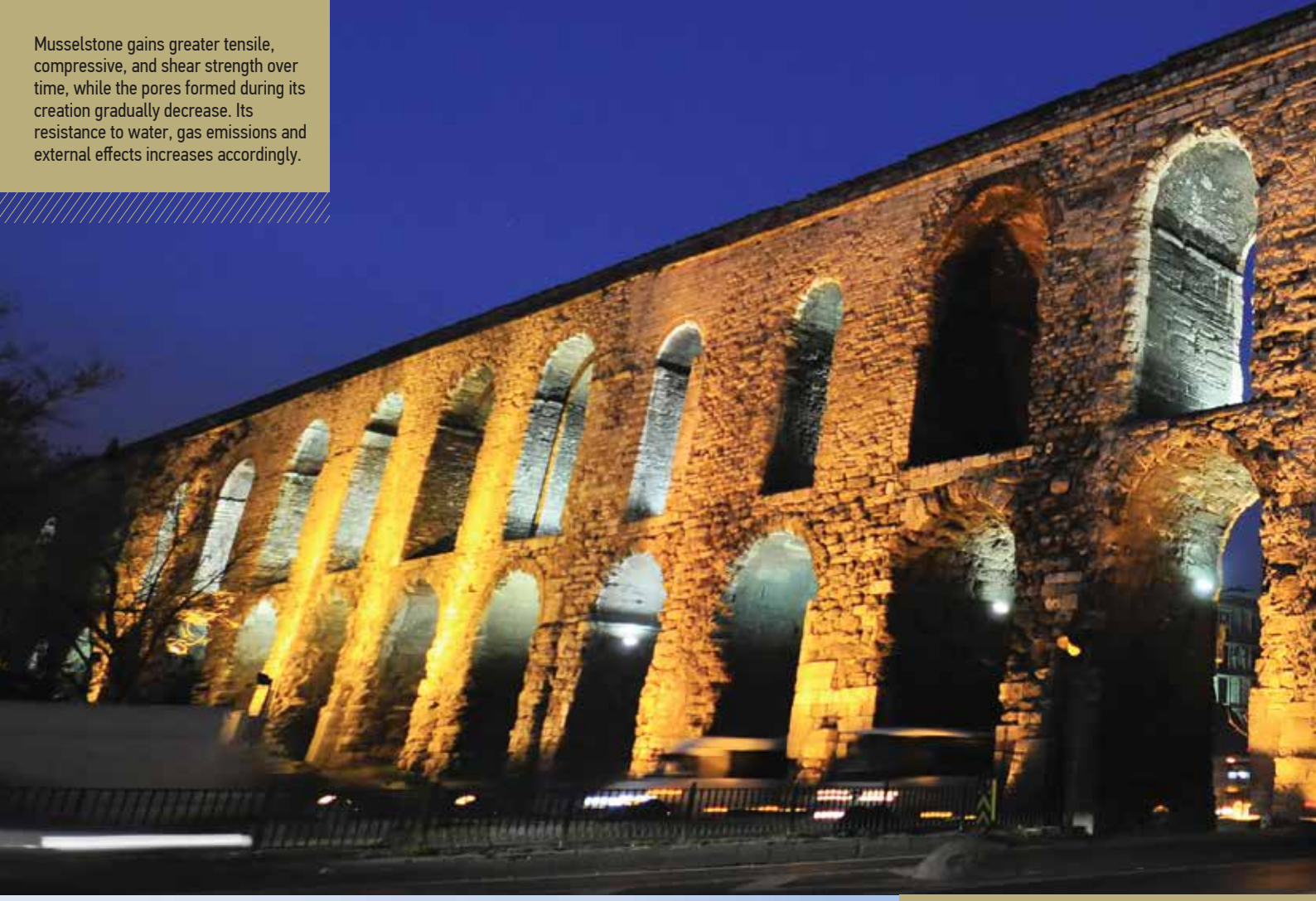


In the courtyard of Darül Hadis Mosque, Musselstone was used on part of the garden walls.

DARÜL HADİS MOSQUE

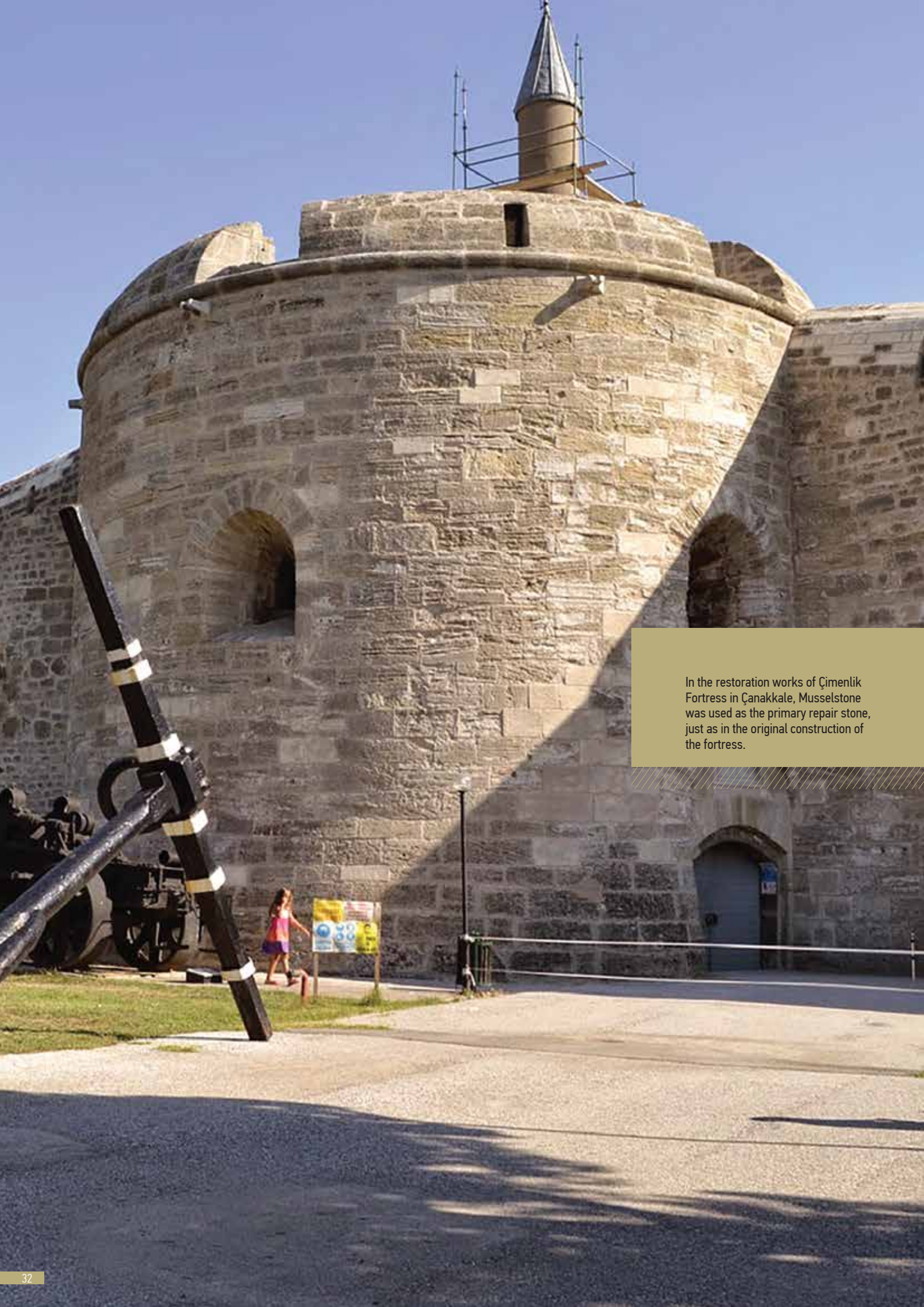
EDİRNE

Musselstone gains greater tensile, compressive, and shear strength over time, while the pores formed during its creation gradually decrease. Its resistance to water, gas emissions and external effects increases accordingly.



Thanks to durability and longevity, it has been used for centuries in many important and prestigious structures.

VALENS AQUEDUCT
İSTANBUL



In the restoration works of Çimenlik Fortress in Çanakkale, Musselstone was used as the primary repair stone, just as in the original construction of the fortress.

ÇİMENLİK CASTLE
ÇANAKKALE

Musselstone
has also been used in floor coverings, arches, columns, mouldings, bay windows, parapets, fireplaces, garden landscaping, reliefs, portals, mihrabs, and pulpits.

In the reconstruction of Madrasa Ali Bey Mosque, natural stone Musselstone is being used again, just as in its original construction.

MADRASA ALİ BEY MOSQUE
EDİRNE

Musselstone
is used in today's architecture for the restoration of historical buildings, as well as in new constructions such as villas and waterfront mansions, garden walls, walkways, gazebos, and similar applications.

Just as it has been used for centuries in historical structures, Musselstone continues to be used in modern buildings as well.

SULUKULE MADRASA
İSTANBUL

ABRASION RESISTANCE TEST REPORT

TEKNİK RAPOR 09.05.2013

KONU:

Kıvanç Kimya San. ve Tic. AŞ. İ.Ü. Jeoloji Mühendisliği Bölümü Doğal Yapı Malzemeleri Laboratuvarına getirilen küp şeklinde hazırlanmış kayaç parçaları üzerinde TS 699 (1987) ve TS EN 14157 (2003)'deki belirtilen esaslara uygun olarak aşınma deneyi yapılması istenmiştir.

GİRİŞ:

Konu ile ilgili olarak laboratuvarımıza ilgili firma tarafından getirilen küp şeklindeki öneklerin TS EN 14157 (2003) ve TS 699 (1987)'e göre, yüzey aşınma kaybı değeri belirlenmiştir.

ÖRNEK TANIMLAMASI

Laboratuvara getirilen örnek makroskobik olarak, sarımsı beyaz, bej renkli, boşluksuz/az boşluklu, bol fosilli kireçtaşı tanımlanmıştır. İlgili firma tarafından hazırlanan başvuru dilekçesinde, bu örneğin üretimin yapıldığı taş ocağının kuzey kesiminden alındığı belirtilmiştir.

SÜRTÜNME İLE AŞINMA (BÖHME) KAYBI DENEYİ

Bölümümüz Doğal Yapı Malzemeleri Laboratuvarında 7x7x7cm boyutlarında 5 adet örnek üzerinde Sürtünme ile Aşınma Kaybı (Böhme) deneyi yapılmış olup, elde edilen sonuç Çizelge 1'de sunulmuştur.

Çizelge 1.Aşınma deney sonucu.

Deney	Deney Sayısı	Sonuç min.	Sonuç max.	Sonuç ort.	İlgili Standart
Yüzey aşınma kaybı değeri ($cm^3/50cm^2$)	5	12	14	13	TS 699 (1987) TS EN 14157 (2003)

GENEL DEĞERLENDİRME

TS 10449 (1992)'ye göre, aşınma dayanımı, döşeme kaplaması, merdiven basamağı vb. yer döşemesinde kullanılacak taşlarda 15 $cm^3/50cm^2$'den, duvar kaplamasında kullanılacak mermerlerde 25 $cm^3/50cm^2$'den büyük olmamalıdır. Laboratuvarımızda yapılan Sürtünme ile Aşınma Kaybı deney sonucuna göre, getirilen örneklerin yüzey aşınma değerleri ortalama 13 $cm^3/50cm^2$ olup, gerek yer döşemesi gerekse de duvar kaplaması olarak kullanılması uygundur.

Bilgilerinize saygı ile sunulur.

Prof. Dr. Atiye TUĞRUL
Doğal Yapı Malzemeleri
Laboratuvar Sorumlusu

Dr. Murat YILMA

COMPRESSIVE STRENGTH TEST REPORT

TEKNİK RAPOR 17.02.2014

KONU:

Kıvanç Kimya San. ve Tic. AŞ, İÜ Jeoloji Mühendisliği Bölümü Doğal Yapı Malzemeleri Laboratuvarına getirilen küp şeklinde hazırlanmış kayaç parçaları üzerinde TS 699 (2009) ve TS EN 1926 (2013)'deki belirtilen esaslara uygun olarak tek eksenli basınç dayanımı deneyi yapılması istenmiştir.

GİRİŞ:

Konu ile ilgili olarak laboratuvarımıza ilgili firma tarafından getirilen küp şeklindeki örneklerin TS EN 1926 (2013) ve TS 699 (2009)'e göre, basınç dayanımı belirlenmiştir.

ÖRNEK TANIMLAMASI

Laboratuvara getirilen örnek makroskobik olarak, sarımsı beyaz, bej renkli, boşluksuz/az boşluklu, bol fosilli kireçtaşı tanımlanmıştır.

TEK EKSENLİ BASINÇ DAYANIMI DENEYİ

Bölümümüz Doğal Yapı Malzemeleri Laboratuvarında 7x7x7cm boyutlarında 5 adet örnek üzerinde tek eksenli basınç dayanımı deneyi yapılmış olup, elde edilen sonuç Çizelge 1'de sunulmuştur.

Çizelge 1. Tek eksenli basınç dayanımı deney sonucu.

Deney	Deney Sayısı	Sonuç min.	Sonuç max.	Sonuç ort.	İlgili Standart
Basınç dayanımı (MPa)	5	50	75	58	TS 699 (1987) TS EN 14157 (2003)

GENEL DEĞERLENDİRME

TS 10449 (1992)'ye göre, basınç dayanımı, döşeme kaplaması, merdiven basamağı vb. yer döşemesinde kullanılacak taşlarda 50 MPa'dan, duvar kaplamasında kullanılacak taşlarda ise 30 MPa'dan büyük olmalıdır. Laboratuvarımızda yapılan tek eksenli basınç dayanımı deneyi sonucuna göre, getirilen örneklerin dayanım değerleri ortalama 58 MPa olup, gerek yer döşemesi gerekse de duvar kaplaması olarak kullanılması uygundur.

Bilgilerinize saygı ile sunulur.

Prof. Dr. Atiye TUĞRUL
Doğal Yapı Malzemeleri
Laboratuvar Sorumlusu

Yrd. Doç. Dr. Murat YILMAZ

REFERENCE LIST

MEDITERRANEAN MADRASA

HAGIA SOPHIA

VALENS AQUEDUCT

BULGARIAN CHURCH

TOPKAPI PALACE WALLS (WALL 1 – WALL 2)

VALENS WATER AQUEDUCT

TOPKAPI PALACE

IMPERIAL MINT / TOPKAPI PALACE

YILDIZ PALACE

SÜLEYMANİYE MOSQUE

RAMAZAN EFENDİ MOSQUE

CEDİD ALİ PAŞA MOSQUE

ÜSKÜDAR VALİDE ATIK MOSQUE

AHMEDİYE MOSQUE, ÜSKÜDAR

FERRUH KETUDA MOSQUE, FATİH

SİLİVRİ PİRİ MEHMET PAŞA MOSQUE

DAVUTPAŞA MOSQUE

KAPTANPAŞA MOSQUE

MOLLA ÇELEBİ MOSQUE

UNKAPANI BULGARIAN CHURCH

KARACAAHMET MOSQUE

KUVEYT TÜRK MOSQUE

KAPAN MOSQUE

BEDESTEN (COVERED BAZAAR)

BİGALI CASTLE

KADIİSKELE MOSQUE

SEDDÜLBAHİR CASTLE

ÇİMENLİK CASTLE

ANZAC INSCRIPTION

İSKELE MOSQUE

RÜSTEMPAŞA MOSQUE

REFERENCE LIST

SELİMİYE MOSQUE

MILITARY HOSPITAL MARTYRS' CEMETERY

ATİKALİ MOSQUE

BEYLERBEYİ MOSQUE

DAMAT FERİT PAŞA MOSQUE

DARÜLHADİS MOSQUE

GAZİ MİHAL MOSQUE

HIDIRLIK BASTION

FACULTY OF THEOLOGY

KUŞÇU DOĞAN MOSQUE

SARAYİÇİ BRIDGE

SÜLE ÇELEBİ MOSQUE

MEDICAL MADRASA

TUMİRTAŞ TOMB

SÜLEYMANPAŞA MOSQUE

TÜTÜNSÜZ BABA TOMB

HAVSA SOKOLLULU MOSQUE

HAVSA FOUNTAIN

SARACHANE SEZAİ BABA MOSQUE

SARACHANE ÇAKIRAĞA MOSQUE, EDİRNE

FEVZİ PAŞA PRIMARY SCHOOL

EDİRNE MUSEUM

KAZASKER SALİH SMALL MOSQUE

ALİBEY MADRASA MOSQUE

SOKOLLULU HAMMAM, EDİRNE

FACULTY OF ARCHITECTURE

BARANCAN CONSTRUCTION BOUTIQUE HOTEL

SARAYAKPINAR

SARIÇAPAŞA MOSQUE CONSTRUCTION SITE

MUSTAFA ER-RIFA'İ TOMB

FATİH MOSQUE / ENEZ

A timeless natural stone
musselstone

KIVANÇ Group

reviving history...

Head Office
İkitelli OSB Mah. Aykosan 2. Kısım
5C Blok Sk. Aykosan San. Sit. 5C Blok
Dış Kapı No:1 İç Kapı No:1 Başakşehir / İstanbul
T: +90 (212) 671 28 00

www.kivancgroup.com

Edirne Facility
Edirne Cad. Şafak Mah.
No:107 Süloğlu/Edirne
T: +90 532 637 08 12