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# Turkey

Discover  
the potential

## Turkey has distinct benefits for investors

*The economic potential of Turkey is being lauded by numerous foreign investors due to the country's many advantages. Here are the five dimensions on the macro level that count the most*

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### The power of quality in cement, glass and ceramics

*Turkey's cement, glass and ceramics industry boasts many sustainable and innovative practices. In terms of exports, the country ranks sixth in cement and ceramics globally and 18th in glass. **Page 9***



### Fethiye – a home away from home

*There is at least one corner of Turkey where one might suddenly imagine oneself to be in a sunnier and warmer version of a town in the UK. **Page 15***



Collaborations between Turkey and the UK are proving invaluable and will hopefully continue for many years to come

key and the UK. With the so-called ‘brain drain’ hitting the research sector in the early 2000s, the Scientific and Technological Research Council of Turkey (TÜBİTAK) has since sought to reverse, or at the very least slow down, this outward movement by initiating a ‘brain circulation’. In collaboration with the Marie Curie Actions Programme and the EU 7th Framework Programme, TÜBİTAK established a programme in 2010 called the ‘TÜBİTAK 2232 Reintegration Research Fellowship Program’ in the hopes of encouraging researchers to reintegrate into the area of research in Turkey.

TÜBİTAK is also helping to finance the Newton-Katip Celebi Fund. The Newton Fund was set up with the aim of developing scientific and innovation partnerships to help promote the economic development of collaborating countries. There are 15 delivery partners in the UK which are partnered with countries around the world, including Turkey. The joint Newton-Katip Celebi Fund was established in Turkey in 2014 with the aim of building strong, sustainable, systemic partnerships between UK and Turkish scientists, researchers and institutions. So far, the Newton – Katip Celebi Fund grants have been assigned to 40 researchers from 27 institutions in 12 cities across Turkey. From day to day, investment opportunities continue to come to light, many sectors are growing, innovations are continuously coming to the forefront and brightening our lives, steps towards a sustainable, greener future are being made day after day, scientists and researchers are still working non-stop to find cures and make advances to benefit all of us. Collaborations between Turkey and the UK are proving invaluable and will hopefully continue for many years to come, thus prolonging and sustaining the golden era of relations between these two beautiful countries. \*

# The Golden Era in Turkey-UK relations

The United Kingdom and Turkey have a relationship that spans back centuries

REBECCA BROKS

The first ambassador appointed by the UK to the Ottoman Empire was William Harbone in 1583. In 1793 Yusuf Agah Efendi was made the Ottoman ambassador to the UK in 1793. There have been many spells of fine weather for the two countries and since the beginning of the 21st Century, this fine weather has been most prominent in the business arena. Thanks to a young and rapidly growing population, these relations, especially in the fields of health, renewable energy, science and innovation, are set to continue in coming years, and provide a key ingredient for robust long-term growth potential, despite the unsettling events that have played out in Turkey recently.

Healthcare has been one of the main focuses of the current

Turkish government, who came to power in 2002 and immediately launched the country’s healthcare transformation programme. Driven by these reforms and private investments, Turkey is gradually emerging as one of the hottest healthcare markets in the global arena. The country has doubled its healthcare spending in the last 10 years, reaching \$62.3 billion. According to Philipp Reuter, Director South Europe and Turkey at Frost & Sullivan, “Turkey has vast potential for all types of companies across the healthcare spectrum. Having always been regarded as an R&D hub in the healthcare industry, the country is now a huge and mostly unsaturated consumer market with significant opportunities in the area of healthcare services, innovative medical device technologies, pharma and clinical diagnostics.”

The government has laid out a set of goals which it hopes will be

met by 2023, in time to celebrate the centenary of the Turkish Republic. Among these targets are some ambitious ones within the renewables sectoring that aim to cut fuel import costs and enhance energy security. Turkey is expected to continue to be a key hotspot for all renewables, from geother-

mal to solar, wind and hydro power, not just in the Middle East but also in Europe.

**Science and scientific researches**

The realm of science and scientific research also continues to see warm relations between Tur-



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## TURKEY – BETTER BY DESIGN

*The Turkish Ministry of Economy and Turkish Exporters' Assembly (TIM) are collaborating to organise the first Design Turkey Week, to be held from October 18-23*



In today's world economy, quality alone is not enough to ensure a product is in demand. Global competition is on the rise but it is also fierce within Turkey itself, where design is highly prized. These days, first-class production standards are essential to ensure the ongoing, sustainable export of manufactured goods. With its growing focus on quality design and value-added production, Turkey is playing host to an increasing number of events and exhibitions as it works towards creating global brands by its centenary in 2023.

Nearly 250 R&D centres have been opened in Turkey in the past six months – and the plan is to double that number. These developments are critical to efforts to boost Turkey's exports, with the goal being to help inspire a passion for innovation among different business sectors and the younger generation. One initiative stands out as a beacon of design in Turkey: Design Turkey Week. Organised by the Turkish Exporters' Assembly (TIM), which is the country's largest private export organisation and advocate for ex-

porters at home and abroad, Design Turkey Week will celebrate creativity and innovation in the fields of industrial design, fashion, and visual communication.

### A new horizon

The centrepiece of Design Turkey Week will be exhibitions by top Turkish creatives and design centres, including the winners of prestigious international awards. The event will bring enthusiasts together for a design competition and awards ceremony in order to open new horizons in the sector. In addition, panels, conferences, and workshops will host distinguished designers, universities, design schools, manufacturers and academics from the around the globe. Pre-selected by an international jury and curated according to category and sector, they represent a wide variety of industries such as packaging, lighting and electronics, as well as home appliances, home and office supplies, and public and commercial products. The winning designs will be promoted in national and international exhibitions and publications. \*

### FROM DESIGN TURKEY TO DESIGN TURKEY WEEK

TIM has been organising Design Turkey since 2008. It is the only platform presenting industry, design, and export under one roof. TIM's newest initiative, the first Design Turkey Week, was developed to provide momentum to the country's economy. This cosmopolitan event aims to increase the number of value-added products, give Turkey a competitive advantage, raise awareness of what constitutes good design, promote brand Turkish design, and encourage investment in the sector.

## FDI-friendly

Thanks in large part to earlier financial reforms and open government investment policies, FDI in Turkey has risen consistently in recent years, with the banking sector leading the way

JARED KIMBALL

Foreign direct investment (FDI) in Turkey is covered by the Foreign Direct Investment Law No. 4875 of 2003. The statute was formulated to encourage FDI, protect investors' rights, align the definitions of investment and investor terms in line with international standards, establish a notification-based system rather than an approval-based system for potential inflows of FDI, and streamline policies and procedures to increase the volume of FDI. In order to solidify the country's potential to enhance bilateral investment relations, Turkey has since 1962 signed bilateral agreements for the promotion and protection of investments with 94 countries, 75 of which have been ratified. Turkey has also signed double taxation prevention treaties with 80 countries, thus ensuring with more investment partners that taxes payable in one country may be offset against tax obligations normally incurred in the other, further increasing the attractiveness of the country.

### Investment framework

In addition to these legal components of its FDI-friendly policies, Turkey has signed free trade agreements with 37 countries. Taken together, these policies outline an investment framework that allows foreign investors to more easily establish operations to serve not only the quickly growing Turkish and EU markets, but also markets throughout the Black Sea and MENA regions. In addition to

### TURKEY SIGNED DOUBLE TAXATION PREVENTION TREATIES WITH 80 COUNTRIES

its strategic geographic position and large market size, foreign direct investors into Turkey enjoy the added advantages of its cost-effective transport sector and the well-educated but inexpensive labour force. Financial services contributed about 20 per cent

of Turkey's GDP between 2002 and 2015. From 2002-2015, the financial services sector was the country's top recipient of FDI, receiving \$47.9 billion during the 14-year period. Banks led the pack in terms of attracting foreign capital, with the \$37.5 billion invested in banks since 2002 representing 78.23 per cent of all FDI in Turkey's financial services sector during the same period.

### Basel III standards

In addition to opening up the state-owned participation banks to private investors, the Turkish government and its financial regulatory bodies have in recent years been adopting the standards of the Basel III international banking regulatory framework. Designed to ensure a healthier global financial system less prone to runs on cash and credit, the Basel III standards establish global guidelines for banks' capitalisation structures. Turkey was fully compliant with the preceding Basel II requirement of an 8 per cent capital adequacy ratio (CAR), and the sector's 15.56 per cent capital adequacy ratio as of 2015 was already well above the approaching 10.5 per cent minimum CAR to be adhered to by banks across the world. With such consistent growth and a stable capital base, Turkey's banks appear positioned to remain one of the top beneficiaries of the country's investment-friendly environment for the foreseeable future. \*



Turkey's banks appear positioned to remain one of the top beneficiaries of the country's investment-friendly environment for the foreseeable future



Turkey's ports stand out as one of the major beneficiaries of the country's privatisation initiative

## PRIVATISING TURKEY'S PORTS

*To overcome setbacks that have long hampered the development of Turkey's increasingly vital maritime trade sector, the government is engaging in a programme of privatising the country's ports*

JARED KIMBALL

Revenues from privatisation projects in Turkey hit an all-time high in 2013, reaching \$12.4 billion. Turkey's ports stand out as one of the major beneficiaries of the country's privatisation initiative, with private ports generating \$1.6 billion for the state coffers as of 2016. Along Turkey's 8,333km coastline there are 172 ports and piers, two of which are owned by Turkish Republic State Railways (TCDD), while six others are owned and managed by the Turkish Maritime Administration (TDI). Categorized as municipal, private, or public, Turkey's ports constitute the backbone of the country's commerce, serving as hubs of international trade. The process for privatising Turkey's ports is based on a privatisation law passed in November 1994, which set out the legal framework for transferring operating rights to private businesses. Privatisation of TDI-operated ports began in 1997 with the transferring of rights to do business for 13 ports.

The most compelling case to be made for privatising Turkey's ports is their success in attracting greater levels of investment; despite consistent profitability, the six TCDD-owned ports have failed to internally finance development projects, due in large part to a lack of autonomy. In 2005, the Port of Mersin became the first privatised port to have completed the transfer of rights and began operating as a completely private enterprise. With a storage capacity of 1.8 million TEUs, the Port of Mersin is one of the largest in Turkey. A consortium of Akfen and Singapore-based PSA

won all commercial rights for the port for a 36-year period with a winning bid of \$755 million, thereby becoming the first global maritime trader to ever operate in Turkey. Following the success of Mersin, TCDD continued its privatisation push, successfully securing 36-year transfers of operating rights in 2000 for ports in Bandırma and Samsun with Celbi Group for \$175.5 million and Ceynak Logistics and Trade AS for \$125.2 million, respectively. The operating rights of Iskenderun's port were transferred from TCDD to Limak A.S. for \$372 million in 2011, while in 2015 Safi Holding AS won the rights to operate Derince's port with its \$543 million winning bid. Riding this momentum, in 2006 TCDD initiated the privatisation of Izmir's Alsancak Port, the country's largest. The winning bid for the concession was the \$1.275 billion offer made by a consortium of Global-Hutchison-Ege Ihracatci Birlikleri and the Deutsche Bank Infrastructure Fund, which was awarded operating rights for 49 years – the longest period allowed under the privatisation law. Due to numerous legal challenges, however, the privatisation process of Izmir's Port was halted indefinitely. After years of delay, the tender for the privatisation process of Izmir's port will again begin in 2016.

On the estimated 130,000sqm of land in the zones under concession, government leaders are expecting the privatised port to be better able to raise the necessary capital investments to support a modernisation initiative aimed at establishing a logistics centre capable of supporting the 3 million TEUs projected to pass through the port once the upgrade is complete. \*

## Industry 4.0 to bring 8 per cent growth to Turkish economy

Industry 4.0 is a project that incentivises traditional industry to computerise and equip it with the latest technology. It is also known as the fourth industrial revolution. Industry 4.0 is projected to deliver 8 per cent growth in Turkey

The world welcomed the first Industrial Revolution with the invention of steam engines. Today, Industry 4.0 is on the agenda, with the fourth industrial revolution seen as the beginning of radical changes in the global economy. Representatives from the business world across every nation are now discussing this revolution, with many countries already implementing it swiftly. Germany is taking the lead. Despite a late start in industrial history, Germany has managed to turn this into an opportunity and come out of countless economic crises with minimal damage. Europe's largest industrial country is now taking a leading role in the Industry 4.0 revolution. But Turkey is playing its part as well. At the Industry 4.0 Turkey Forum in Istanbul, business people created the roadmap to become a part of a digitalising world. Experts speak of a 5 to 8 per cent growth potential in the economy if Turkey adapts itself quickly to the fourth industrial revolution, which the country is expected to complete within 30 years.

One of the most controversial issues regarding this revolution is whether or not it will eliminate the human workforce. Siemens Turkey Executive Committee Member Ali Rıza Ersoy anticipates the human element will gain more importance in the new industrial revolution. In the new era, we will continue to need a human workforce to design and programme the machines and develop their algorithms. Bosch places particular importance on Industry 4.0 in its Turkey operations at a time when the whole world, specifically Europe and the US, is talking



Bosch Turkey and Middle East President Steven Young

about the Industry 4.0 initiative. Bosch Turkey and Middle East President Steven Young remarked that the world's Industry 4.0 transformation is well under way. "Bosch commenced its Industry 4.0 and related organisational efforts in Turkey in 2014," said Young.

### Smart robots on the job

With the onset of Industry 4.0, smart robots will become a crucial item at the top of the agenda. The revolution will make it possible to improve efficiency, eliminate loss of time, and mitigate production errors, thanks to the smart robots that work at plants – and the humans who know how to manage them. "Smart robots, or the future blue-collar workers, are set to become the most striking part of the fourth industrial revolution," said Koray Tuncer, Digital Transformation Association General Secretary in Turkey. "Over the next two decades, the business world will be seeing more smart robots –which can develop, learn, and repair themselves– becoming a decisive factor in all production phases." \*

### DIGITALISATION

In a nutshell, Industry 4.0 is defined as the digitalisation of industry. The term Industry 4.0 was first used at the 2011 Hannover Fair, the world's biggest industrial show. The changes that Industry 4.0 will bring defy the imagination. Organic 3D printers will transform life. These printers will even be able to print pizza dough and hamburgers. The same printers will design and print clothes that expand or shrink when a person gains or loses weight. In conclusion, the days of an easy life brought about by digitalisation seem not that far off.



# Turkey's distinct benefits for UK investors

The economic potential of Turkey is being acknowledged among numerous UK investors due to the country's many advantages. Here are the five dimensions on the macro-level that count the most

The UK and Turkey enjoy long-standing and buoyant economic relations, and cooperation between Turkish and UK companies, particularly in the sectors of technology, infrastructure and finance, are close. At present, there are almost 2,900 UK companies operating in Turkey. One major reason for the UK's strong presence is Turkey's highly diversified economy which provides fertile ground for many different businesses endeavours, but also the favourable meta-environment that holds everything together. In a nutshell, Turkey's macroeconomic benefits can be summarized in five dimensions:

## 1 The size of Turkey's economy

Turkey's economy is not only strong, it is also impressively big. The country boasts the world's 18th largest economy by nominal GDP of a bit over \$751 billion as per estimates for 2016, unanimously ranked by the World Bank, International Monetary Fund and United Nations, sitting in size alongside highly developed economies such as the Netherlands or Switzerland. In comparison, the UK ranks as the world's fifth-largest economy. Turkey is also member of the G20 economies, which gives it even more weight as a trading partner, of the OECD and, even more important, the EU Customs Union. The World Bank classifies Turkey as an upper-middle income country with nominal GDP per capita of close to \$10,000 which puts it in the upper third of the global ranking, a sign of solid purchasing power among the population.

## 2 Busy trade hub with young population

Turkey is a trade hub between Europe, the Middle East and Asia. The bilateral trade volume between Turkey and the UK amounted to \$16.1 billion in 2015. The UK was the second country



**AT PRESENT, THERE ARE ALMOST 2,900 UK COMPANIES OPERATING IN TURKEY**

in terms of Turkey's export volume, and 11th in terms of its imports in 2015. Other important export markets are Germany, Italy, France, UK, Russia, US, UAE, Iraq and Iran, and export goods are mainly machinery and equipment, construction material, steel, electronics, vehicles and parts, textiles and clothing, as well as agricultural products. As of 2015, total trade in goods and services has

grown to 60 per cent of GDP from 48 per cent in 2010, clearly showing the importance of the trade sector. As per its demographics, Turkey's population is relatively young with more than a quarter of its almost 80 million people being younger than 14 years, and close to 50 million falling in the age bracket between 15 and 64 years which defines the working-age population.

## 3 Macro data

Turkey's macroeconomic data is solid. The country recovered quickly from the global economic crisis in 2008/2009, and GDP expanded by 9.2 per cent in 2010, and 8.5 per cent in 2011, which made it one of the fastest-growing economies in the world at that time. Turkey managed to maintain a quite healthy growth momentum until today despite adverse global economic conditions and a coup attempt earlier this year. It reached four per cent GDP growth in 2015, and the World Bank's forecast for 2016 and beyond is around 3.5 per cent, significantly more than for most EU countries. Turkey's economic profile is quite balanced, with around a quarter of the labour force each working in agriculture and industry, and the rest in the service sector. Turkey has public debt of 31.2 per cent of GDP as of 2016, which is impressively low by international standards.

## 4 Strategic importance

Turkey's strategically advantageous location at the crossroads of two continents and as a link between Europe, the Middle East and Asia cannot be underestimated. It is not only important for trade, but also because of the fact that important energy trade routes from the Middle East, Central Asia and Russia to European markets are crossing the country. Apart from the energy sector, the unique location of Turkey has also advantages for companies in the logistics and manufacturing sectors, as well in tourism. That said, Turkish Airlines has grown to the airline with the most international destinations, namely 236 in 115 countries as per 2016. Istanbul's new airport, currently under construction, will serve 200 million passengers when fully operational as planned before 2030, making it the largest airport in the world.

## 5 Foreign investment hub

Foreign direct investment (FDI) inflow into Turkey is widely unabated and has reached an average of about \$15 billion annually, with the strongest sectors for FDI being industry and manufacturing, as well as professional services and trade, while the significance of the financial and insurance sectors is rising. The lion's share of FDI, more than 75 per cent, comes from Europe, while most of the rest originates from the Middle East and other Asian countries, as well as the United States. The UK is among the largest foreign direct investors in Turkey with a flow of \$8.6 billion in the period between 2002 and 2015 alone. \*

# Strength in processed produce

Turkey has the know-how when it comes to processing the high-quality fruits of its fertile soil and distributing them to global markets

The Turkish fruit and vegetable industry marks a transition from traditional farming to food processing. It is mainly an export business, and because no raw materials are imported, it generates a net 100 per cent foreign currency input. The country's most competitive fruit and vegetable products include canned fruit and vegetable chunks, frozen fruits and vegetables, sparkling and still mineral water, soda, citrus juices and pickles, cucumber pickles, roasted peppers, jams, tomato paste, canned fruits and vegetables, and fruit juices. Due to the industry's fast growth in recent years, Turkey is now focusing on investment. Producers are diversifying their range through R&D efforts. The industry allows Turkish consumers to enjoy a variety of flavours from around the world and makes popular Turkish items available to other countries. Turkey ranks among the top countries for processed fruits and vegetables along with China, India, Italy, and Spain. Its top five export countries in 2015 were Germany, Iraq, the US, The Netherlands, and the UK. It exported \$1.3 billion worth of fruit and vegetable products in 2015.

## 1.3 million tones of production

Seasonal producers in Turkey employ full automation when processing canned goods. The freshest fruits and

1795

In 1795, Napoleon offered 12,000 francs to the first person to come up with a way to preserve fresh food for a long time

\$3.4 BILLION

Size of Turkey's fruit and vegetable processing industry

40% Share of fruits and vegetables in Turkey's \$3.4 billion export business



vegetables are selected and picked while in season and processed automatically in the most hygienic conditions with no additives, to best suit the demands of the consumer. Another production method involves the Individual Quick Frozen (IQF) technique in which fruits and vegetables are frozen one by one. This process allows produce to retain liquid, thus maintaining nutritional value, natural appearance, and flavour. Turkey's processed fruit and vegetable industry is a \$3.5 billion operation. According to data from the Turkish Exporters' Assembly (TIM), more than 1.3 million tones of fruits and vegetables are processed annually. The industry comprises small- and medium-sized businesses, with most canned food production facilities with high output capacities located in the Aegean and Marmara regions, where almost all of the raw materials are procured domestically. The Aegean region dominates the exports business, with dried tomatoes and pickles representing the largest segment.

## Steady growth

In 2015 Turkey exported fruits and vegetables to 170 countries. In the first nine months of 2016 the export of tomato paste and canned tomatoes increased to 172 countries, generating nearly \$1.5 billion in processed fruits and vegetables. Growth in processed fruits and vegetables has achieved a steady 4-5 per cent trend in recent years. The quality of Turkish products is increasing, especially tomato paste, canned goods, dried tomatoes, capers or fruit juice. The country's processed goods are in demand everywhere because of Anatolia's distinctive microclimate, which means the region produces fruit and vegetables so full of flavour that after processing they still taste as fresh as those sold in the market. The bulk of Turkey's canned goods industry is processed fruits and vegetables, pickles, and short-term canned vegetables. Peas, green beans, and okra stand out in the canned vegetables group, while kidney beans, beans in olive oil, and stuffed grape and cabbage leaves predominate the ready-to-eat foods group. Exported goods largely include compotes (apricot, sour cherry, and peach), canned citrus, pickles, canned olives, and canned tomatoes. \*



The mining industry enjoys a vital position among exporters, due to its role as a primary exporter

## THE EARTH'S BOUNTY

*The mining industry has held indispensable value throughout history, playing a crucial role in helping developed nations attain the level of technology and wealth they enjoy today*

Copper was the first mineral to be discovered and used by Neolithic peoples in the Stone Age. They used this metal rather than stone since it was softer and easier to shape. Early humans also used gold and silver, and since that time, many other minerals have been uncovered. So much so that today, many developed countries mostly owe their economic power to their effective use of natural resources. Mining, along with agriculture, is one of the fundamental areas of production that provides societies with their raw material needs. When export values are considered, crude oil and non-ferrous and industrial metals are seen to account for a large part of the global trade in minerals. The mining industry is highly significant since it provides much of the raw materials for the items we use every day. For instance, have you ever wondered what components are used in a car to make it durable and easy to drive? It takes 1.5 tones of metal to manufacture a car, and more than 5 tones of raw material to supply this metal.

## Primary construction material

Turkey exported \$3.9 billion worth of minerals in 2015, and a total of 5,452 export companies across the country contributed to this figure. The Turkish mining industry is integral to the nation's export commodities and also to glass, ceramics, cement, iron, steel and fertiliser production. Accordingly, its contributions to the industrial and chemical industries account for nearly 4 per cent of Turkey's GDP. Natural stones stand out with nearly half, or \$1.9 billion worth, of Turkey's total mining industry

exports. Natural stone is used as a primary material for construction and for decoration by architects and designers throughout the world, and enjoys a gradually rising status among Turkey's mining industry exports. Turkey possesses a diverse range of mineral resources as a natural result of its complex geology and tectonic formation. It is also one of the richest in the world in terms of variety. Today, among the 90 different types of minerals that are traded globally, there are only 13 that Turkey does not have. Following natural stone, the most exported minerals are chrome, copper and zinc ores, and crude borates and concentrates.\*

\$3.9 BILLION

Turkey exported \$3.9 billion worth of minerals in 2015

20 MILLION TONES

Turkey's mineral exports in 2015

199

The number of countries Turkey's mining industry exports to

# Turkey sets roadmap for 2023 energy targets

Ahead of its centennial celebrations, the country looks to its long-term future with a series of measures designed to raise its energy-hub profile



Keban Dam,  
Elazığ



**RECENT REFORMS  
HAVE MADE  
THE TURKISH  
ENERGY SECTOR  
INCREASINGLY  
COMPETITIVE AND  
ATTRACTIVE TO  
REGIONAL AND  
FOREIGN INVESTORS**

## Clean energy potential

Luckily for Turkey, its geography makes it an ideal prospect for the harnessing of renewable energy. Located along the Mediterranean-Himalayan Belt, the country enjoys significantly high average annual sunlight duration, at 2,640 hours or 7.2 hours per day, offering the perfect conditions for solar power plants. It is also ranked first in Europe and seventh in the world in terms of geothermal capacity, at 31,500 megawatts thermal (MWt), with the Western Anatolia region holding nearly 78% of this potential. The International Renewable Energy Agency (IRENA) estimates Turkey's wind-power capacity at 48,000 MW, while its hydropower prospects stand at 433 billion kilowatt-hour (kWh), of which 140 billion kWh per year is thought to be economically viable. Authorities are also planning to develop its nuclear industry in order to account for 5% of the country's energy supply. Three power plants are in the process of being brought online, with the first facility expected to be operational in Akkuyu by 2020, providing total capacity of 4.8 GW.

## Luring investors

Recent reforms have made the Turkish energy sector, especially the renewable segment, increasingly competitive and attractive to regional and foreign investors, according to Ozge Ozeke, consultant and team leader, Energy and Environment at Frost & Sullivan's Turkey office.

"Turkey is determined to follow its targets so investments in renewable energies – especially solar power – will be attractive in the short term. The wind power development will slow down a bit, but will follow a stable growth path," Ozeke said. "In the medium and long term, biomass will attract more investors. Also the government supports the investments in coal power, in line with its target of reducing dependency on natural gas imports."

In a recent media report, President Tayyip Erdogan said that the country would need more than \$110 billion of investment to fund a slew of energy projects, as it seeks to become one of the world's top 10 economies by 2023. Currently, Turkey occupies the 18th spot in the list of leading global economies. Pursuing a diversified energy mix and a renewables strategy are therefore vital if Turkey is to achieve its long-term economic vision and secure its energy future. \*

CRISELDA DIALA-MCBRIDE

Turkey has big plans for its 100th birthday. Aside from the obligatory pomp and pageantry that will undoubtedly accompany the celebrations, the republic is also seeking to cement its reputation as a global energy hub by 2023. To realise this goal, the government has introduced a series of bold reforms over the past decade, including the enactment of the Electricity Market Law, to liberalise the energy market and improve its regulatory framework. The administration also launched EPIAS, which serves as an energy stock exchange, where companies can trade electricity futures and derivatives. The expansion of power sources has become an important pillar for the Turkish economy. In the next seven years, the country aims to increase the

total installed electricity capacity from 74 GW to 120 GW. It will also seek to nearly double the capacity of coal-fired generation from 15.9 GW to 30 GW. Renewables have their own part to play in this energy story, as the government has pledged to acquire 30% of its total installed capacity by 2023, from non-fossil fuel sources, such as geothermal, hydropower, solar, wind and nuclear.

## Quenching the thirst for electricity

Laying the groundwork for a sustainable energy future has been driven by Turkey's growing population – which is expected to reach 84 million by 2023 – and its rapidly expanding economy; both have put considerable pressure on domestic energy demand. Alison Angus, head of research at Euromonitor International, forecasts the Turkish electricity market to post a compound annual growth rate of 9.8% between 2014 and 2020,



Saritepe  
Blacksmiths  
Wind Farm

to reach TRY 189 billion (\$63.2bn). "Electricity volume consumption in the country is likely to remain fast-growing, given the positive forecasts for main industrial buyers [in sectors such as construction and chemicals]," she said. The

Turkish Electricity Transmission Company (TEIAS) has previously estimated that demand for electricity will grow by 6% to 7% annually until 2023, according to a United National Development Programme (UNDP) report.

# The home of textiles

The textile industry has a long history in Turkey, with weaving known to date back to before the Seljuks in Anatolia. During the Ottoman Empire, the industry grew based on textiles in parallel with this know-how



HANDAN AÇAN

**T**extiles date back quite some time in Turkey, with many weaving and silk-product businesses in numerous Ottoman cities. Since the 1950s, textiles have been treated as a priority industry in investment and development plans, and growth has been built around cotton due to Turkey's position as one of the world's foremost cotton producers.

With the increasing pace of industrialisation in the 1960s, the global textile and ready-made

The textile sector requires relatively more technology than the ready-made clothing industry, and serious capital investments and R&D efforts are crucial

clothing industry began to shift from developed countries to emerging countries in the 1970s, and Turkey rose to prominence as the biggest ready-made clothing and textile exporter to Europe in the 1990s. The textile and ready-made industries are two of Turkey's most vital branches of man-

ufacturing given the jobs they provide, overall production, and strong export performance.

When we think of the textile industry, fabrics and yarns come to mind first. The textile sector requires relatively more technology than the ready-made clothing industry, and serious capital invest-

ments and R&D efforts are crucial. Turkey enjoys an influential position in this field, with its textile and raw materials set to become one of the sectors with exports valued at \$20 billion in technology and innovation-based products by 2023, as a result of current and potential investments and recent manufacturing trends.

### From technical to home textiles

We said that when it comes to textiles, fabrics come to mind first; however, we should remember that fabrics are not only used to make clothing. Technical textiles, smart textiles, denim fabrics and home textiles are also essential products of this industry. Technical textile products are an important aspect of the Turkish textile and ready-made industry as high-value-added items. Such products are described as textile materials and products that are manufactured for their technical performance and functional characteristics, rather than their aesthetic or decorative features.

Turkey manufactures and exports basic technical textile products such as pouches and sacks (called non-woven, cord fabric, or big bag) for bulk goods. In the beginning, technical textiles were limited in use to items like lashing, rope, sack, sailcloth and felt in small amounts. Today, they are used in an extensive range of sectors, including agriculture, construction, vehicles and transportation, defence and health industries. Technical textiles are sure to grow in quantity and importance in the coming years. Turkey's biggest technical textile export nations are Germany and France.

Turkey is a prominent country for home textiles, so much so that Europe's biggest linen manufacturing plant is located there. Also, the

\$8

BILLION

Exports by the Turkish textile and raw material industry in 2015

202

Exports to 202 countries by the industry in 2015

420.000

The industry creates jobs for nearly 420,000 people

machinery built to manufacture brode and guipure in home textiles is the largest in the world. Turkey is also among the world's top three towel suppliers. Woven fabrics, yarns, knit fabrics and home textiles are leading Turkey's textile and raw material exports. Woven fabrics are the most exported products with an export value of \$2.6 billion. In 2015, home textile and technical textile exports stood at \$1.8 billion and \$1.5 billion, respectively. The industry provides incentives for R&D, helping many textile companies to build an R&D centre to manufacture high-value-added textile products. In 2015, textile and raw material exports were led by the trend-setting Italy, followed by the Russian Federation, Iran, Germany, the US, the UK and Bulgaria. \*

## WHAT DO THE INDICATORS SAY?



78

YEARS

Life expectancy at birth is 78 years on average in Turkey; 75.3 years for men and 80.7 years for women.



384

THOUSAND

Number of automobiles sold in January-July 2016.



409

Number of museums in Turkey has increased by 4.3% in 2015 and has become 409.



41.6

MILLION

Number of tourists in Turkey in 2015.



17

BILLION DOLLARS

Turkey's garment export in 2015.

# The power of quality in cement, glass and ceramics

Turkey's cement, glass and ceramics industry boasts many sustainable and innovative practices. In terms of exports, the country ranks 6th in cement and ceramics globally and 18th in glass

Turkey has been a global player in the ceramic industry since the 1980s, but the first examples of its ceramic tradition date back to the 13th century. Archaeological excavations confirm that the practice of ceramic production in Anatolia existed even before the settlement of the Turks. Moreover, tilework, a living craft famous around the world, was developed by Turkish tribes in Central Asia and brought to Anatolia by the Seljuks. Although the value and craftsmanship associated with ceramics has not changed, there have been revolutionary developments in production technologies, quantities, and presence on the global markets. Over the course of nearly half a century, Turkey has made great progress not only in ceramics, but also in cement and glass products, having added design, technology, and branding to its production capabilities.

Today, Turkey is a global favourite thanks to the quality and variety of its products, and its logistical superiority. The cement, glass, ceramic, and clay industries are sectors that use entirely domestic resources



Turkey is a global favourite thanks to the quality and variety of its products, and its logistical superiority

\$2.9 BILLION

Turkish cement, glass and ceramics industry exports in 2015

12

Turkey ranks 12th in global glass production

1824

It is generally accepted that cement was invented by Englishman Joseph Aspdin in 1824

## COLOURFUL TILES OF IZNIK

Turkey's legacy in ceramic production and design goes back many centuries. The most important historical period that honed the nation's expertise was Iznik tile making during the Ottoman Empire. The patterns and figures created by Iznik's ceramic craftsmen centuries ago were used as architectural decorative elements in palaces, mosques, mausoleums, and madrasas, eventually finding their way into palaces and mansions in the form of everyday items such as vases, dishes and plates. Many of these designs are being recreated today with modern interpretations.

and therefore make a positive contribution to Turkey's foreign trade balance with the net inflow of foreign exchange. In terms of exports, Turkey ranks sixth in cement and ceramics globally and 18th in glass. Exports stood at \$2.9 billion in 2015, with goods going to 200 countries. Last year exports to Italy increased by 88 per cent, to the US by 23 per cent, and to the UK by 14 per cent.

### Strong sector

The ceramic sector is one of Turkey's oldest industries, but at the same time it is also one of the most rapidly progressing, with a strong international reputation. Numerous tile brands and vitrified prod-

ucts have received awards over the past decade. Turkey ranks fourth and fifth in terms of ceramic coating materials and medical equipment exports, respectively. The industry develops and diversifies its products every year.

Turkey boasts the largest factories in the world that conduct integrated production under one roof. For example, in Italy and Spain the average capacity of companies engaged in the production of ceramic coating materials is 2 to 3 million square metres. In Turkey, the average capacity is about 8 million square metres. Although cement exports dropped slightly in 2015, Turkey continues to export

at a high rate, especially to nearby countries due to construction activities there.

### Clear winner

The Turkish glass industry was established with the opening of the Paşabahçe Factory in 1935. Today, the nation ranks fifth in terms of European glass production. The glass industry in Turkey provides products for the housing sector as well as for many other industries including construction, automotive, energy, household appliances, food, beverages, pharmaceuticals, cosmetics, tourism, furniture, piping, and electric-electronics. It has an important role in the national economy. \*

The economic timeline of Turkey proves the impressive growth of the country over almost a century



72%

Turkey has 72% of the world's boron reserves.



3 MILLION 976 THOUSAND TONES

Citrus production in 2015.



23%

UK ranks first in Turkey's automobile sales.



1793

The Ottoman State had established its first embassy in Europe in the United Kingdom.



2.

The UK ranked second in Turkey's export in 2015.



## Turkey's growing role as a hub for defence and aerospace R&D

In one of the most strategically sensitive geopolitical positions in the world, Turkey is ensuring through investment initiatives and knowledge transfer that the capabilities of its indigenous defence and aerospace sector are up to the challenges that the country faces

JARED BLACK

Turkey is taking swift and lasting actions to bolster its security standing and acquire access to advanced military technology. The Turkish government is backing defence contractors with considerable results, to the tune of Turkey's president announcing in 2015 that the country was set to "completely eliminate external dependency on defence equipment supply with ongoing plans and investments" by 2023. Expenditures on military R&D in Turkey reached an estimated \$15.1 billion in 2012 and are projected to rise to \$20.3 billion by 2017, making its national defence sector one of the most attractive defence markets in the region. Given that many of the most profound technological advances at the core of 21st century life were originally developed through the military, leaders of both government and the private sector are pinning their hopes on eventual civilian applications of the many new innovations taking place as Turkey moves closer to solidifying its position as a world-class R&D hub of the global defence and aerospace industry.

Armaments themselves are becoming an important addition to Turkish export offerings. Turkey's Undersecretariat for Defence Industries (SSM) stated that the country's defence and aerospace exports reached \$1.6 billion in 2014. The main products exported range from rockets to armoured vehicles and electronic systems. The country's night vision goggles are revered for their effectiveness and durability and have been employed in conflict zones across the world, with the US Army as one their major users. Some of Turkey's most im-

### THE MAIN PRODUCTS EXPORTED RANGE FROM ROCKETS TO ARMoured VEHICLES

portant defence R&D programs illustrating the immediate potential of its land and air capabilities include the Altay main battle tank and the Turkish Fighter Experimental (TFX) program. The Altay project be-

gan in 2008 and is scheduled to be finished this year.

Koç Holdings subsidiary Otokar has developed several prototypes, and interest has been expressed by the militaries of Colombia, Saudi Arabia, Azerbaijan, and Pakistan. The TFX programme is another key development that will place Turkey among a select group of countries in possession of fifth-generation fighter aircraft. The design of the FX-1 model was carried out by Saab for approximately \$20 million of behalf of Turkish companies TUSAS and TAI. The new fighters replace the ageing F-16s and will be integrated alongside the US Lockheed Martin F-35 Lightning II Joint Strike Fighter that Turkey also plans to acquire and for which it will be able to function as a hub for maintenance, repair, and overhaul (MRO). The offset and technology handover programme is central to the manufacturing process of the TFX, and the F-35 manufacturing involves the construction of a new facility for advanced carbon composite fuselages. Turkey's defence manufacturers will be assembling variants of the Sikorsky S-70 Black Hawk helicopter as per a \$3.5 billion deal announced in 2014, and Turkish generals are hoping that within several years they will have at their disposal the Anka, a local equivalent of the US Predator Drone. The scope of the SSM 2012-2016 Strategic Plan focuses on actions to guarantee the strength of Turkey's defence sector. The SSM is continuing to carefully oversee local SMEs and foreign suppliers with a stake in Turkey's defence sector to advance their capabilities and bolster Turkey position as a defence and aerospace R&D hub. \*

## WHY TURKEY?

*Patients all around the world prefer Turkey for in vitro fertilisation. Success of IVF centres in Turkey is exemplary*



first to use a sperm selection method called microchip, which was discovered by a Turkish Professor Utkan Demirci living in the USA. This method, which is becoming widespread around the world, is a very successful method. Tiras says that the success rate for microchip IVF at Acibadem is around 70%, whereas success rate for normal treatments is around 50%.

### Quality/affordable price

Today, cost of an IVF treatment in Turkey at an IVF institution with a high pregnancy rate is around \$2,300 and the medication is also cheaper in Turkey. Consider that IVF costs in Europe is around €5,000-€6,000. It is around \$15,000 in the USA. Turkey is the preferred destination in this regard. Tiras says that many patients from countries such as Bulgaria, Georgia, Azerbaijan, Turkmenistan, Uzbekistan, Kazakhstan, Kyrgyzstan, and Russia come to Acibadem IVF Centre, and in the last few years, a lot of patients started to come from Iran, and they also have many patients from Gulf Countries, in particular from Saudi Arabia and the UAE. Since the process takes longer due to some limitations in IVF treatments in Germany, Italy, Switzerland, and France.

Prof. Tiras says that they also organise a lot of scientific meetings in various countries, they explain latest developments in IVF, and examine medical workups to tell them about the opportunities in Turkey. Tiras says "We can organize informative sessions upon request in countries such as the UK, France, Russia, the UAE, and Germany". The centre for international Patients in Acibadem provides full-time service for patients coming from abroad. Patient service professionals

provide various services from appointment scheduling for the patients, to communication with international insurance companies, from hotel reservations, to post-treatment communications with the doctor. You can learn everything you wish to know about IVF at Prof. Dr. Bulent Tiras' website [www.bulenttiras.com](http://www.bulenttiras.com). \*

Turkey is moving ahead quickly and firmly in medical tourism industry. One of the leading names in this area is Professor Doctor Bulent Tiras from Acibadem Maslak IVF Centre in Istanbul. Tiras tells us that this industry is really highly advanced in Turkey: "Turkey has made great progress in the health industry in recent years. The IVF industry is also really advanced. There are restrictions on this in many countries around the world. Many countries do not follow developments in IVF as closely as Turkey does, they are lagging behind. We are among the top five countries in Europe in terms of the number of IVF treatments. Its population, their wish to have children, and the advanced technology of IVF centres in Turkey are among the factors that improve success." Tiras indicates that Turkey is able to compete in this field, particularly with its counterparts in the European countries and in the USA. Another leading institution in IVF services in Turkey is the Acibadem Group. Around 50 thousand IVF treat-



Prof. Dr. Bulent Tiras

ments are made in a year in Turkey. Tiras says, "As Acibadem Group, we make around 12,500 IVF treatments in a year at our 10 IVF centres, and this is one fourth of the annual IVF treatments". In Turkey, the latest technologies in IVF are used. Turkey is the leader especially in sperm selection. Prof. Tiras also tells us that they were the

The history of the land where Turkey stands today parallels the history of human civilisation. The first cities were built there, and the first laws were written there; this land has witnessed many significant events. A haven of nature, history, and gastronomy, modern Turkey has a sophisticated charm in many ways. It is home to centuries-old sports, the world's oldest mall, desserts that contain meat, and much, much more. Although you may think you know a thing or two about Turkey, here are some facts that are sure to surprise you.

#### Your dessert may contain chicken

Turkish milk desserts are uniquely delicious, especially *tavuk göğsü*. The main ingredients of this traditional, homely dish are milk, sugar, rice flour, and – no, you are not reading this wrong – chicken breast meat! We'd love to say that this favourite is easy to prepare at home, but actually it takes quite a bit of skill. So when you visit Turkey, be sure to try this tasty treat. Interestingly, the origin of *tavuk göğsü* dates back centuries, to the Romans. They passed it along to the Byzantines, who introduced it to the Ottomans. The Roman gourmet writer Apicius included a recipe in his book. And Ottomans made it a native flavour of the region. Another dessert, *kazandibi*, was created by caramelising the bottom of *tavuk göğsü* while still in the tray. It is usually topped with cinnamon. Originally, *tavuk göğsü* and *kazandibi* were served only to the rich in palaces and mansions, but eventually the desserts made their way to common people, and have been consumed with pleasure for centuries.

#### The tulip is Turkey's gift to the world

Did you know that the tulip is a native of Turkey, not The Netherlands? Let's go on a little journey through the dusty pages of history... The tulip is a decorative member of the lily family with long, pointed leaves and a colourful, speckled, oval-shaped flower. The Europeans discovered the tulip in the second half of the 16th century. There is no consensus about how and when it wound up in Europe; it's not clear whether Austro-Hungarian Ambassador Busbecq brought tulip bulbs home out of curiosity, or whether they were a gift from Ottoman Sultan Suleiman the Magnificent. Nevertheless, back in time, tulips from Turkey were so valued in The Netherlands that the bulbs were sold at astronomical prices.



A true natural wonder, where blue sky meets green forests, Iztuzu beach hosts endangered loggerhead sea turtles every year, that return to lay their eggs

## Six facts you might not know about Turkey

From desserts that contain chicken to an oily national sport, we bring you six lesser-known facts about the country



The Turkish national sport, oil wrestling, is so named because the competitors cover themselves in oil before each match

#### Iztuzu Shores, home of the sea turtles

*Caretta caretta*, or loggerhead sea turtle, builds its nest on rare beaches around the world. One of them is Iztuzu in Dalyan, a golden sandy beach along the Turkish Mediterranean. A true natural wonder, where blue sky meets green forests, Iztuzu beach hosts endangered turtles every year, which return to lay their eggs. The region helped to make sea turtles a symbol of environmental conservation activities when a major investment in tourism was called off in 1986. As a result, the Dalyan region was named a Special Environmental Conservation Area and is now under state protection.

#### Turkey is teeming with cultural heritage

With the addition of the Ani Ruins, Turkey now has 16 sites on the UNESCO cultural heritage list. Since the first UNESCO meeting in 1972, many areas and landmarks around the world have been declared cultural heritage sites. Governments are mandated to promote and protect these cultural and natural assets for the good of the common heritage of the whole world. Through the efforts of Turkey's General Directorate of Cultural Heritage and Museums, 16 of the country's landmarks have been included on the World Heritage List to date. They include famous places such as Istanbul's historic district;



The tulip is a decorative member of the lily family with long, pointed leaves and a colourful, speckled, oval-shaped flower

Mount Nemrut; the ancient cities of Troy, Safranbolu, and Ephesus; Hittite capital Hattusha (Boğazköy), Edirne Selimiye Mosque and Complex; Bursa and Cumalikizik; and the Ancient City of Ephesus, attracting millions of tourists from all over the world every year. The Ani Ruins are the latest addition to that list. Ani is an archaeological site located in the southern Turkish city of Kars, near the Turkish-Armenian border. This multicultural Silk Road settlement was in continuous use from the Early Iron Age until the 16th century. Ani tells the story of life in the Middle Ages, its architecture, arts, and rich diversity.

#### Turkey has the oldest and largest shopping mall in the world

The Grand Bazaar is situated in the neighbourhood of Beyazit, right in the centre of Istanbul. It is the largest bazaar in the world – and one of the world's oldest shopping malls. Almost 25,000 people work in some 4,000 shops in the Grand Bazaar. One of the busiest tourist attractions in the world, it draws approximately 90 million visitors annually. Most sources agree that construction of the Bazaar began in 1461 under the reign of Ottoman Sultan Mehmed the Conqueror. With hundreds of streets, stores, and inns, the Bazaar is often the first destination tourists in Turkey head for. Its many gates and complex layout make it as confusing as it is fascinating. But don't panic. Just when you think you're lost forever, a gate will appear right in front of you. So keep looking around and enjoying the countless items for sale in the thousands of stores.

#### Oil wrestling is Turkey's national sport

The Turkish national sport, oil wrestling, is so named because the competitors cover themselves in oil before each match. Oil makes it much harder to grab the opponent, making this sport far more challenging in terms of strength and skill. The *Kirkpinar Oil Wrestling Festival* takes place in Edirne, the most Western point in Turkey, and it celebrated its 665th year this July. This is your opportunity for a first-hand view of this sport in action, which Turks have practised since they crossed from Anatolia into Thrace. Tournament participants are called 'pehlivans'. The first place winner, or the 'başpehlivan', receives a golden belt. Recognized as a cultural tradition that has continued unchanged for centuries, the *Kirkpinar Oil Wrestling Festival* was added to UNESCO's Intangible Cultural Heritage list in 2010. \*

# Turkish fashion on trend in the 18th century

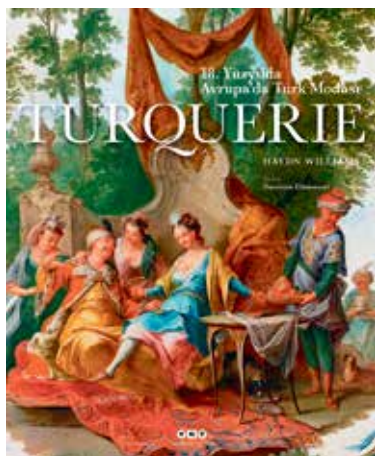
Turquerie was the name given to the fashion for all things Turkish that took Europe by storm in the 18th century. It was described as a world of imagination, distinct from both Europe and the east

**T**urquerie was a trend of the times and the word was used to reflect Europe's perception of Ottoman Turkey through different art forms. Its use dates back to the conquest of Constantinople, today's Istanbul, by the Ottoman Turks in 1453. Although the acquisition startled and even frightened Europe, it didn't diminish its interest in all things Ottoman. This curiosity was satisfied for a while to some degree through the stories of visiting travellers, and through costume books that provided information on Ottoman attire from the 16th century onward. Europeans weren't well versed in the Ottoman society of the time. Therefore, the images in these books were to a certain extent a result of imagination, but it's safe to say they had a significant impact nonetheless. So much so, the artists who had created their own vision of the Ottomans and the east without visiting Ottoman territory used these references for nearly two centuries.

Diminishing fear of the Turks coincided with the defeat of the Ottoman Empire at the Battle of Vienna in 1683. A more peaceful atmosphere was created in its aftermath, taking the Turquerie movement to its peak. A counter movement arose amid those who claimed that the trend was too gaudy, but that didn't stop many others who were also taken by this movement.

## Royal appeal

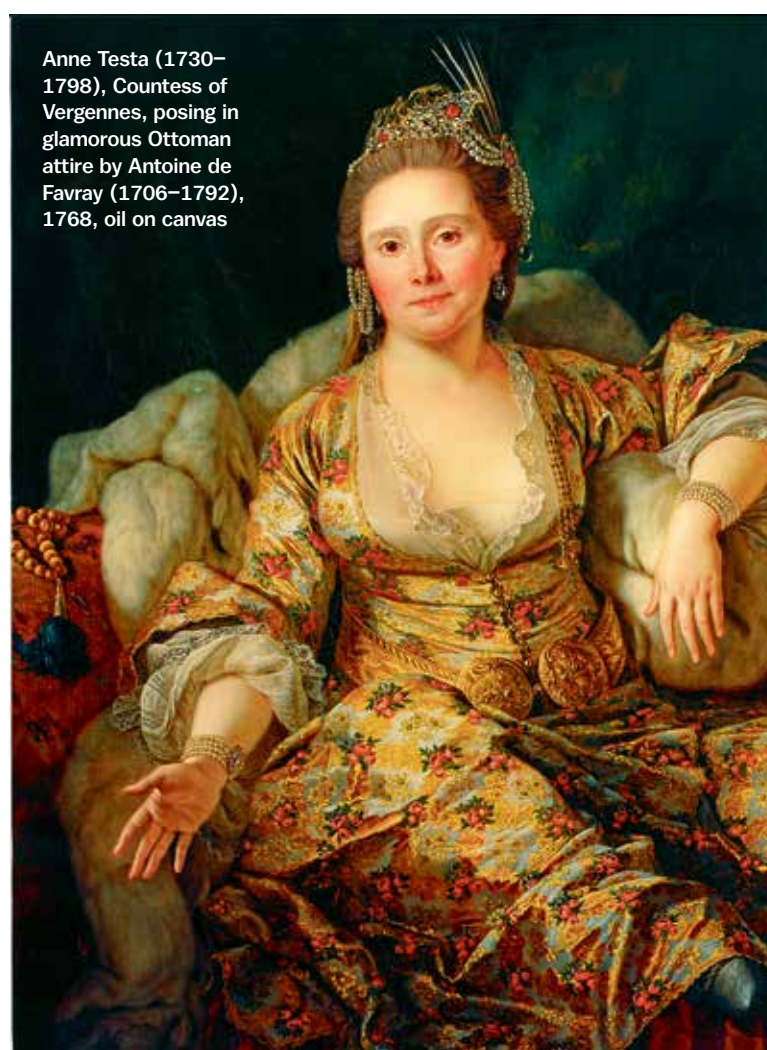
Though the most intense and lasting expression of Turquerie was found in France, other European nations were also enthusiastic in adopting the style. For instance, Frederick Augustus I, Elector of Saxony, who later became Augustus II (the Strong), King of Poland, frequently dressed up as the Sultan in court festivities. Maria Antonia Josepha Johanna, better known as Marie Antoinette (1755–1793), the last Queen of France prior to the French Revolution, had a Turkish room at the Palace of Fontainebleau that featured turbans



Le Prince de Condé, Empereur des Turcs from the book titled *Courses de têtes et de bagues faites par le roi et par les princes et seigneurs* (1670) by Charles Perrault (1628–1703) by François Chauveau (1613–1676)



Charles Gravier, Count of Vergennes by Antoine de Favray (1706–1792), 1766, oil on canvas



Anne Testa (1730–1798), Countess of Vergennes, posing in glamorous Ottoman attire by Antoine de Favray (1706–1792), 1768, oil on canvas

and crescent-themed woodwork. Furthermore, Ottoman themes were seen in many Comédie-Italienne theatre performances, and were prominent in famous ballets and operas. Published in Turkey by Yapı Kredi Publications, the book *Turquerie: An Eighteenth-Century European Fantasy* by Haydn Williams describes this movement down to the last detail. In the book, Williams explains that diplomats, including those who were permanent representatives and those who served in delegations, influenced Europe's perception of the Ottoman world.

For instance, Ogier Ghiselin de Busbecq (1522–1592) served as ambassador to the Ottoman Empire from 1554 to 1562, and openly expressed his admiration for the Ottoman military and administrative system.

## EUROPEANS CONTINUED TO VISIT THE OTTOMAN EMPIRE THROUGHOUT THE 18TH CENTURY

### Great collectors

Les Quatre Premiers Livres des Navigations et Peregrinations Orientales by Nicolas de Nicolay (1517–1583), published in Lyon in 1568, was another book that had a significant effect on Europe's perception of the Ottomans. Its success created an interest in Europe in historical and regional costumes, and many etchings books began to feature an

Ottoman section. One of the most influential manifestations of this interest was the Türckische Cammer, or Turkish Chamber, built by Louis George, Margrave of Baden-Baden (1702–1761), to contain his expansive collection of Turkish weaponry, woven textiles and other articles collected during his expeditions.

European diplomats, traders and travellers continued to visit the Ottoman Empire throughout the 18th century. These people were accompanied by many artists during their travels. Their paintings and drawings helped to create an image of this faraway land for those who had never been there. Jean-Baptiste Vanmour (1671–1737) was one of the most prominent of these artists. For a long time, Vanmour's engravings were one of the first references to be used by painters, designers and porcelain artisans when depicting Ottoman life. The women Vanmour drew included the harem's invisible occupants, the Greeks he had contact with, and other Istanbul residents. These personalities were represented posing in a variety of positions, such as while playing a musical instrument, sewing or drinking coffee. These art pieces acted as starting points for others when creating their own versions of Turquerie.

### Adopting Ottoman style

This movement was expressed impressively in the British Empire as well. Lady Mary Wortley Montagu (1689–1762), as wife to the British ambassador to the Ottoman Empire, was fond of wearing Turkish dresses, a habit she kept up on her return to Britain. Moreover, in one of her famous letters, she had illustrated Ottoman clothing in fine detail, contributing to the trend of dressing up in Ottoman style in England.

Lady Montagu wasn't the only person associated with an embassy to have adopted Turkish fashion. Charles Gravier (1717–1787), Count of Vergennes, the Envoy to the Ottoman Empire (1755–1768), commissioned Antoine de Favray (1706–1798) to paint portraits of himself and his wife. Such a stance was against Europe's established portrait painting rules, and furthermore, it implied a certain level of integration in Ottoman life. There are hundreds of other examples available. Towards the middle of the 19th century, fantasies of Turquerie began to make way for others. A similar fantasy was Orientalism, a trend facilitated by the diversity of Ottoman lands. The great thing is that today, there are a myriad of stories, engravings, paintings and articles left from Turquerie and Turkish fashion, a trend that reached its peak in the 18th century. \*

DAVID HEMPSTEAD

In 1710, Mary Pierrepont eloped with her future husband, Edward Wortley Montagu, to avoid marriage to a suitor preferred by her father. That was a spirited and potentially perilous thing to do in those times. Edward was later appointed British ambassador to the Ottoman court in Istanbul and, as Lady Mary Wortley Montagu, she travelled to Turkey with him, arriving in the country in August 1716.

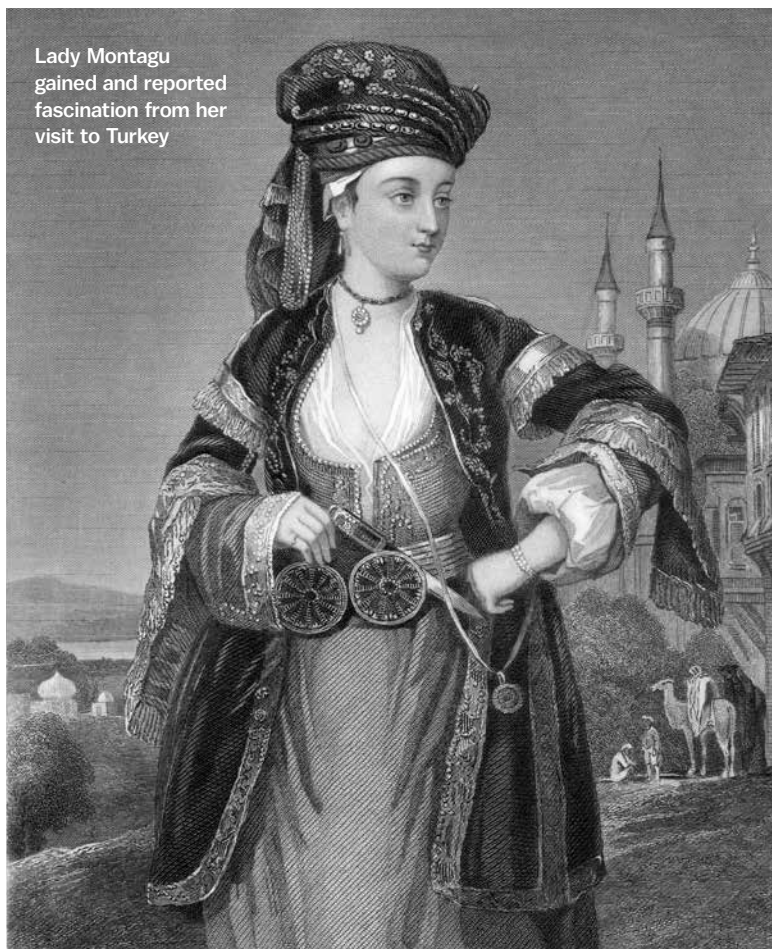
An aristocratic beauty of her day, by the time she left English shores, Mary was already on the way to becoming a literary celebrity. On her travels she wrote letters home describing her impressions of Turkey and its people and customs, which were not at all well-known nor understood at the time. The Turkish Embassy Letters were an eye-opener but she also initiated a significant advance in medical science as a result of her travels.

#### A new world

One of Lady Montagu's most well-known letters describes her visit to The Ladies Coffeehouse or Turkish baths at Adrianople, on April 1, 1717. The town, known today as Edirne, in the north-west corner of Turkey, was once the capital of the Ottoman Empire. "...I am now got into a new World where everything I see appears to me a change of Scene," she wrote. "I was in my travelling Habit, which is a rideing dress, and certainly appear'd very extraordinary to them, yet there was not one of 'em that shew'd the least surprize or impertinent Curiosity, but receiv'd me with all the obliging civillity possible." Entering the baths she writes, "The first sofas were cover'd with Cushions and rich Carpets, on which sat the Ladys, and on the 2nd their slaves behind 'em, but without any distinction of rank by their dress, all being in the state of nature, that is, in plain English, stark naked, without any Beauty or deffect conceal'd, yet there was not the least wanton smile or immodest Gesture amongst 'em... There were many amongst them as exactly proportion'd as ever any Goddess was drawn by the pencil of Guido or Titian, and most of their skins shineingly white, only adorn'd by their Beautifull Hair divided into many tresses hanging on their shoulders, braided either with pearl or riband, perfectly representing the figures of the Graces."

#### Medical advance

The Ottoman Empire was a truly exotic place to report back from three centuries ago. But perhaps Lady Montagu's greatest discovery and bequest to Britain upon her re-



## Lessons from a lady of letters

It is 300 years since an extraordinary English woman set foot in Turkey, and sent home tales of a wonderful new world

turn, was an entirely new approach, at least to the British, to the treatment of smallpox, a disease from which she had suffered and had left her scarred. "Every autumn in the month of September, when the great Heat is abated, people send to one another to know if any of their family has a mind to have the small pox. They make partys for this purpose, and when they are met (commonly 15 or 16 together) the old Woman comes with a nutshell full of the matter of the best sort of small-pox and asks what veins you please to have open'd. She immediately rips

#### ONE OF LADY'S MOST WELL-KNOWN LETTERS DESCRIBES HER VISIT TO THE LADIES COFFEEHOUSE

open that you offer to her with a large needle (which gives you no more pain than a common scratch) and puts into the vein as much venom as can lye upon the head of her needle, and after binds up the little wound with a hollow bit of shell, and in this manner opens 4 or 5 veins." The result was a day or two of fever but after that, successful inoculation. Lady Montagu treated her own children and also others at the London Court of the time, much against the views of the medical establishment. Today, the idea of using traces of a disease to develop immunity to it, is commonplace. Yet it was not until 1798 that Edward Jenner introduced a smallpox vaccine. So Lady Montagu, the lively society poetess and letter writer, who gained and reported much fascination from her visit to Turkey, was three quarters of a century ahead of a significant development in medical science. And she always remained down to earth. It is reported that once at the opera she was told that her hands were dirty. She replied, "You should see my feet." Lady Mary was always her own woman. \*

## THE ROAD FROM HISTORY TO THE PRESENT DAY

*For centuries, the Silk Road was one of the main arteries of world trade. It not only served to haul goods from East to West and vice versa, but also to transport knowledge, ideas, religions, and cultures. To this day, it has not lost its importance*

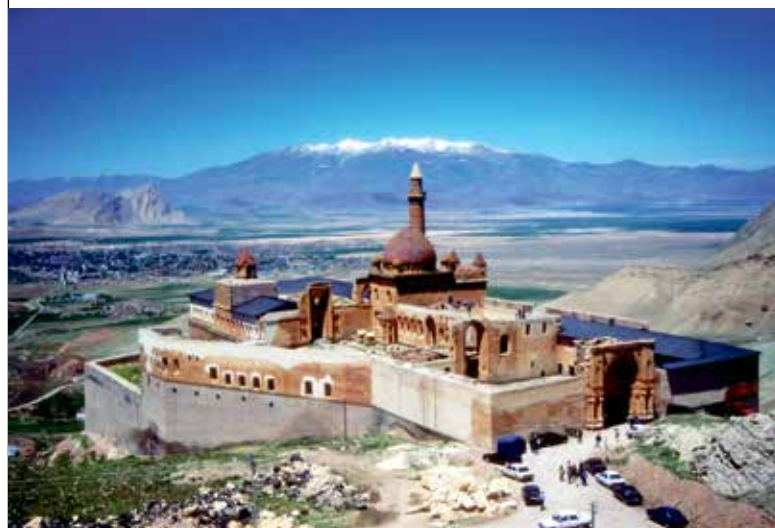
VERONIKA HARTMANN

The Silk Road is an historic route, famed for linking the Orient with the Occident, and inevitably makes you think of camel caravans carrying fine fabrics and precious spices. As early as the fifth century BC, Greek historian Herodotus described this route as increasingly gaining significance. Only when China became a maritime power and took to moving merchandise with large ships rather than on the notoriously arduous overland route – and on which the Ottoman Empire had begun to levy high road tolls – did the popularity of the Silk Road decline. Today there are efforts to reinvigorate the ancient road, as the trade arteries of the past have regained their topicality in the present age. With the fall of the Soviet Union and China's evolution into a manufacturing nation that exports its products around the globe, the functionality of the Silk Road is again in high demand. Turkey is well aware of the potential of the ancient trade routes and strives to give the historic route a contemporary face, including a high-speed rail link that will extend as far as China. This is expected to not only

boost trade in Asia, but also to intensify cultural relations. With its well-developed infrastructure, Turkey acts as a hub and bridge between East and West. Turkish President Recep Tayyip Erdogan secured major bilateral treaties during his most recent visit to China, thus carrying on the tradition of the Silk Road. Erdogan went on to state that, "In order to revive the historic Silk Road, we have built a third bridge across the Bosphorus and laid an underground rail track." With the modern-day Silk Road to link London with Beijing, Turkey is set to become a major transit country.

However, it would be wrong to picture the historic Silk Road as a specific route; in fact, it is more of a network of different roads and paths. China, India, Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan, Iran, Kazakhstan, Syria, and Turkey are situated directly in the heartland, but the bordering countries are also inspired by the commerce, ideas, and knowledge conveyed via the historic transport routes.

In Turkey, you can experience both the modern and the historic Silk Road in one day, when you spend the night in a rustic yet freshly renovated caravanserai after a speedy ride on a bullet train. \*



# Metropolis, the Pearl of the Levant

The ancient City of the Mother Goddess south of Izmir on the Aegean coast has a particular charm – and is open to the public once again

KNUT DIERS

If you sit on the steps of the ancient amphitheatre of Metropolis south of Izmir and close your eyes, it isn't difficult to feel as if you've gone back in time. As early as 5,000 years ago the first settlers arrived here, and people have been living for thousands of years in the area around Izmir, because of its proximity to the sea, and the ideal soil for growing cotton and tobacco plants, olives, grapes and figs. The climate allowed commerce and culture to flourish and the nickname The Pearl of the Levant was quickly coined.

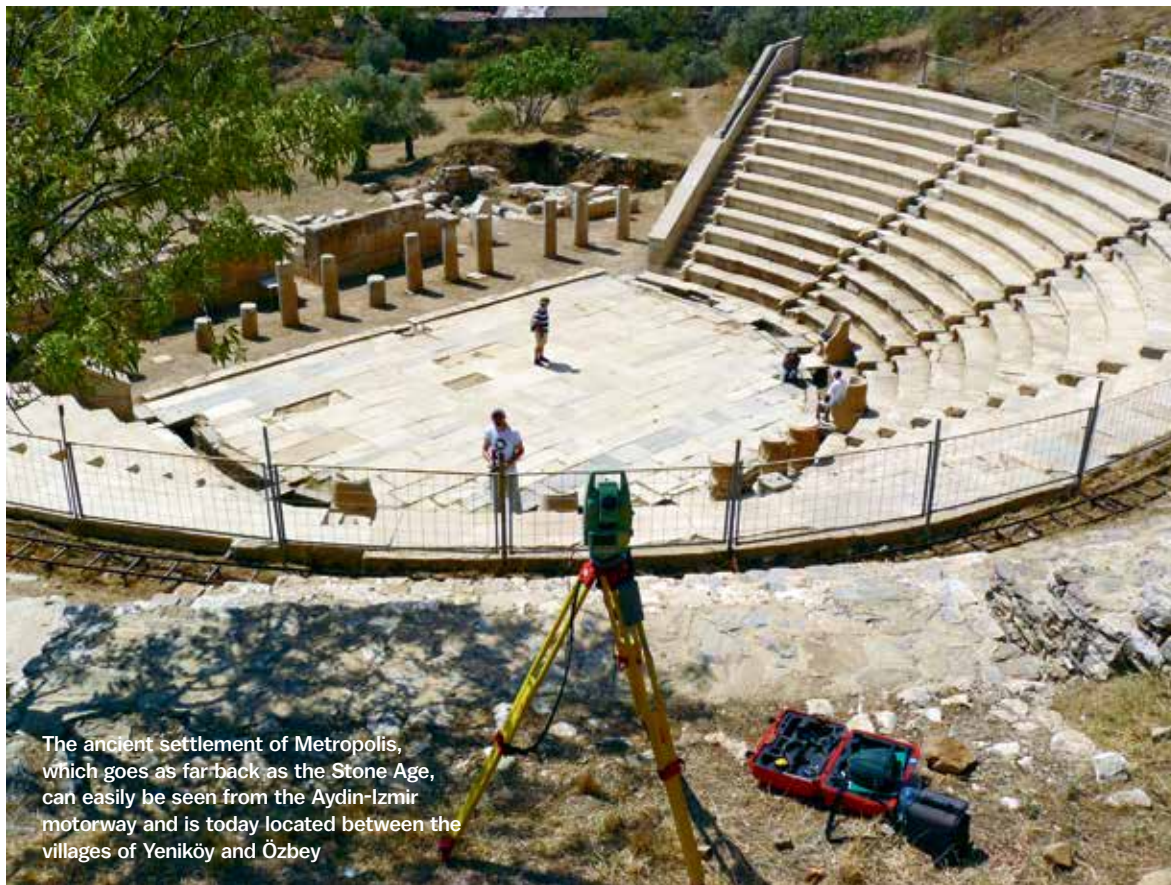
In summer the paved paths of the extensive area are open daily from 8am to 7pm (in winter opening times are an hour shorter and the paths are closed on Mondays). Of course, the Aegean coast is not exactly short of ancient sites, Pergamum, Troy and Aphrodisias being among them. But Metropolis, which only recently opened to the public, has a particular charm as it offers very well-preserved remains, an enthralling history and is picturesquely situated on a hill.

## Unique finds

This Metropolis has nothing in common with the 1927 violent silent film classic, nor the fictitious city of comic-strip hero Superman. The name refers to the mother goddess Galassia. A translation into Turkish of the name Metropolis can be found in the name given to the nearby city of Torbali.

The ancient settlement of Metropolis, which goes as far back as the Stone Age, can easily be seen from the Aydin-Izmir motorway and is today located between the villages of Yeniköy and Özbey. According to the research of archaeologist Recep Meriç, the town was founded as early as 725 BC.

Meriç was in charge of the excavations in Metropolis between 1989 and 2007, when he unearthed unique pieces such as mosaics, coins and stone axes. His work was continued by Dr Serdar Aybek of Trakya University, together with scholars from Germany and Nor-



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way – something made possible by the Sabancı foundation. A temple dedicated to Zeus, the main god of ancient Hellenistic mythology, was also excavated.

Geometric and archaic ceramics dating back to about 500 BCE were found on top of the acropolis. The town's heyday, however, was the Hellenistic age in the 3rd cen-

tury BC, when city walls and other fortifications were built. In addition to these the Ares-Temple, the stoa (a columned hall used for teaching), the bouleuterion (an assembly hall) which was partitioned by Byzantine walls, and the amphitheatre were constructed at a time when the neighbours from Hellas were the masters here.

If you look closely at the altars around the theatre, you can find reliefs in honour of Emperor Augustus and his grand-nephew Germanicus. These clearly hail from the Roman era, which followed the Hellenic age. The gymnasium with its thermal bath located on the northern slope was also built by the Romans.



**THE TOWN'S HEYDAY, HOWEVER, WAS THE HELLENISTIC AGE IN THE 3RD CENTURY BC**

## Much to explore

The palaestra can be found near the entrance next to the lower thermal bath, which had a hot air heating system. It was originally meant to be an area to train wrestlers. Here, however, it denotes various bathing rooms, which were nonetheless used for training. The peristylum next to the theatre is also worth a look. It was a type of house widely spread among Hellenic peoples. The courtyard was surrounded by columns; "peri" means "surrounding" and "stylos" is the word for column.

On your way up to the acropolis, you will notice the walls of the fortifications. They go back to the 14th century, which means they were erected in the late Byzantine era. Only when the Ottomans arrived 100 years later did the population abandon the town and move to Torbali.

The ancient site can be comfortably reached from there via the D 550 highway – follow the brown signposts. If you want to see even more findings from the ancient sites of the region, a visit to the Izmir Archaeological Museum is highly recommended. \*



Few places in Turkey are as easily reached from the UK, or as geared up for British visitors, as Fethiye

## Fethiye – a home away from home

There is at least one corner of Turkey where one might suddenly imagine oneself to be in a sunnier and warmer version of a town in the UK

MARK SMULIAN

Expatriates in any country tend to settle on one town as their 'own', and for the British in Turkey it is Fethiye. In 2015 there were some 4,685 foreign residents in Fethiye among them 3,193 who are British, some of whom own businesses. So why Fethiye? As with many destinations that draw people away from the UK's variable weather, it is partly a matter of climate. Down in Turkey's south-western corner on the Turquoise Coast, Fethiye enjoys a Mediterranean climate with hot and dry summers with an average temperature of 34°C, while a winter daytime averages around 16°C. Some British residents are married to Turkish citizens or have some connection with the country, but many will have visited as tourists before deciding to settle in the town, whether for business or as a leisure or retirement option. "People do come first on holiday and settle," said Ronnie Higgins, owner of Fethiye-based Coast2coast Properties. "They say if you drink the Fethiye water you will never leave. That's what happened to me and many others."

### Something for everyone

Higgins says the British presence dates from a housing boom

in Turkey around the millennium when cheap prices and a very favourable exchange rate attracted many UK buyers, not a few of whom re-mortgaged properties back home to buy in Fethiye. The town draws tourists despite having been badly damaged in an earthquake in 1957, which means most of it was rebuilt soon after. It is set on a bay at the foot of the mountains and sheltered by forests, with many sandy beaches and islands nearby. Divers can enjoy undersea caves and a

### IN 2015 THERE WERE SOME 4,685 FOREIGN RESIDENTS IN FETHIYE

short journey away is the Blue Lagoon nature reserve, sometimes known as the Dead Sea for its stillness. There are popular boat trips around the islands available, a weekly market on Tuesdays, a pleasant harbour promenade for strolling, and for the energetic the deep Saklikent gorge walk. Fethiye also boasts a five-star marina and two smaller ones for sailing

enthusiasts, and for the seriously adventurous the chance of a parachute descent above the Blue Lagoon. Fethiye is thought to date back to the 5th century BC and was originally known as Telmessos and part of the ancient Lycian civilisation.

### On familiar ground

The presence of so many British expats, and the many thousands of British tourists who arrive each year, has led to the development of services provided in English such as doctors and dentists, and the easily availability of British foods. There are enough British people to warrant a UK consulate in the town, and even a British-owned weddings co-ordinator. British people who want to buy a home in Fethiye, for permanent or holiday use, will find properties of all kinds available and many choose to buy for occasional personal use and then rent to tourists at other times, since the large numbers who arrive each year make it simple to find tenants. Foreign nationals may own businesses in Turkey, though they must check if they can work legally or need to employ Turkish nationals, Higgins advises. Fethiye is easily reached from the UK. It lies about 50 kilometres from Dalaman airport, which is served with direct flights during the tourist season from London and regional airports by EasyJet, Thomas Cook, Pegasus and Jet2, and year-round by Turkish Airlines via Istanbul. Antalya airport is about 200 kilometres and three-and-a-half hours away and is served by similar airlines. \*

## THE OTTOMAN AVIATOR

*Hezarfen Ahmed Çelebi is famous in Turkey as the Ottoman aviator who flew across the Bosphorus in the 17th century*

DAVID HENDRIX

Every child in Turkey learns about him in school, while his feat of flying from one continent to another is included in countless Turkish documentaries and books. Nevertheless, Hezarfen Ahmed Çelebi is not well known outside the country. However, the story of Ahmed Çelebi is also rejected as one of the many dubious legends of human flight, which are actually quite common around the world. This account, though, deserves a second look. Little is known of the details of Ahmed Çelebi's life besides his flight across the Bosphorus in Istanbul. Most of what we know about him comes from Evliya Çelebi, one of the famous Ottoman explorers and authors. According to Evli-



Hezarfen Ahmed Çelebi

ya Çelebi, Hezarfen Ahmed Çelebi climbed to the top of Galata Tower and then successfully flew across the Bosphorus as Sultan Murad IV (r. 1623–1640) watched from a distance. The Sultan was initially impressed and rewarded him with a sack of gold coins. However, we are told that the Sultan later changed his mind and exiled Ahmed Çelebi, apparently due to pressure from members of his court who considered him dangerous. While humanity has long dreamed of flying, various forms of flight have been strongly veri-

fied and replicated only in the past two centuries. This is one of the reasons why Ahmed Çelebi's flight has been doubted. The first clearly recorded successes in flight were with balloons and parachutes in the late 18th century, which were followed by the use of gliders in the 19th century. Leonardo da Vinci – who spent a significant amount of time in Istanbul – drew several designs of flying machines. While he never actually experimented with any of these designs, tests with his glider have shown it works. When we turn to the account of Ahmed

Çelebi's flight, there are several aspects to it that make it plausible. First of all, we are told he made several experiments with flight before attempting to fly between two continents. The glide ratio from Galata Tower across the Bosphorus is problematic, unless there was a strong wind. Yet the account includes a south-west wind – and a very particular one at that. This is the famous Lodos wind – a periodic strong gust with which a glider could easily cross the Bosphorus. It is possible that Ahmed Çelebi included this wind in his calculations.

Traditional European history has tended to minimise or even forget the scientific contributions of other cultures, both past and present. And this is why the flight of Hezarfen Ahmed Çelebi deserves a fair hearing. \*



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