

A photograph of an astronaut in a white spacesuit on the moon's surface. The astronaut is bent over, using a tool to examine the lunar soil. The background shows the dark, cratered landscape of the moon under a black sky.

The Apollo 11 Moon Landing — Is it time to go back? Or should we aim for Mars?

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Join us in commemorating the events of **November 17** 1939/1989

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Faculty Night

A student festival which offers presentations and discussions covering aspects of society and law. The main theme this year is entitled Velvet Faculty, focusing on the transformation of the former Czechoslovakia and the Czech Republic in a democratic and lawful state with a free market economy.

14/11

Dissent in Czechoslovakia

A conference at the Carolinum at Charles University which will recall the dissident and artistic underground movement in the former Czechoslovakia. The conference will dovetail with an exhibition entitled Our November'89 and a concert by the famous Plastic People of the Universe, and others, at Kampus Hybernská.

15/11

Economic Transformation in the Czech Republic and Slovakia

An international conference to be held at the University of Economics, Prague, which will examine the economic transformation in the Czech Republic and Slovakia over the 30 years since the Velvet Revolution. The conference will also look towards the future and what it could hold in store.

17/11

Freedom and Democracy Day at Albertov

The traditional site will see students and academics deliver speeches, and hold presentations and discussions. At three pm on the day, participants are invited to take part in a student parade recalling the historic events of 1989.

For more information see www.svobodnylistopad.cz,
FB: @svobodnylistopad



Photo by Martin Frouz

Dear readers,

With the new academic year of 2019/2020, we are proud to present you with the latest English language issue of Charles University's Forum magazine.

We strongly believe that every scientific inquiry starts with asking proper questions and mapping the addressed issues. Such is modern, cutting-edge research at Charles University. This edition brings together numerous articles and interviews covering everything from groundbreaking economic research to fascinating archaeological finds involving Czech researchers in Israel and Egypt. Also highlighted are accomplishments by students, including how an obscure language was saved from oblivion. Along the way, there are also warnings: the growing problem of drought and significant changes in ecosystems due to the drop in insect populations. As scientists "dig" through the strata it is as essential as ever to gauge where we stand and what the future could bring.

In this issue, we also look back: this July saw the 50th anniversary of the Apollo 11 moon landing when, for first time, astronauts set foot on our celestial neighbour and then – as Kennedy had promised – returned safely to the Earth. Some moments were undeniably touch-and-go: even 50 years on, it seems incredible that, when crisis struck, Neil Armstrong took manual control of the Apollo Lunar Module and achieved the softest of landings.

It is probably no surprise that many of us still count the mission to the Moon among the very greatest of human achievements. The Apollo Program (and Mercury and Gemini that preceded it)

show that with enough vision, scientific ingenuity, resources and determination, human beings can overcome even the greatest of challenges. A similar sense of purpose will no doubt be needed as humans consider whether to return to the Moon or aim for the Red Planet. The current plans and achievements of Elon Musk, for instance, show quite clearly how much every and any scientific success depends on visionary individuals and people that are not only leaders but also those seeing things differently from the majority.

One of our wishes is that Charles University will continue in providing an environment for people who inspire others, who can see things which seem "invisible" and who will shape the future. There are only few undisputable facts in this world such as gravity, climate change, several mathematical constants, the eternal pyramids of Egypt or the magical nature of even numbers. We can add science as one of the basic preconditions of our bright future: it is not facts but real, unbiased and deep knowledge in all fields of scientific pursuit that make our world a better place to live in.

Best wishes in the new academic year. Enjoy the issue and – just so you know – there is no need to wait for the hard copy: you can read all the latest articles and interviews in English at Charles University – online – all year round.

Miroslav Bárta

Vice-Rector for Public Affairs



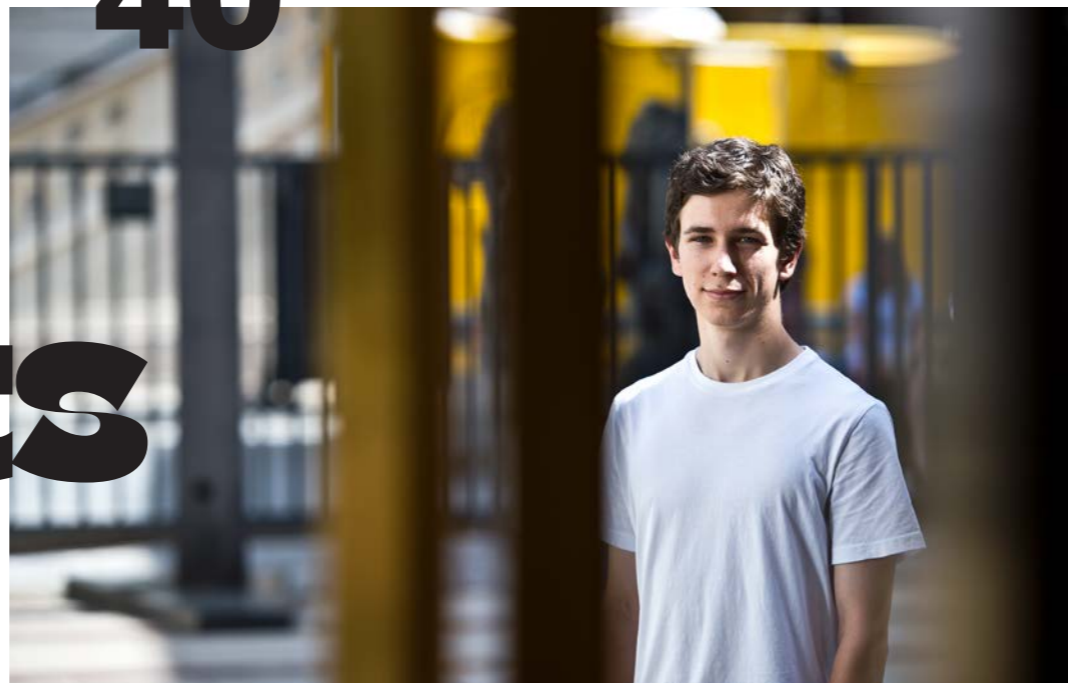
You can read the articles online too!

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Evžen Kočenda:

An Economist Captivated by Time

Economics, Impressionism, and plastic fighter aircraft models. Think they have nothing in common? In different respects they are a reflection of time and that is why economist Evžen Kočenda, this year's winner of the research grant Donatio Universitatis Carolinae, appreciates them as much as he does.

STORY BY Lucie Kettnerová
PHOTO BY René Volfík



As an economist, you have a good sense of what is happening on the markets. Aren't you ever tempted to put your theoretical knowledge into practice and simply invest?

No, that does not at all appeal to me because that's predicting the future. Economics should map out and give recommendations on what should be done through careful analysis: predicting the future is not the goal.

Don't friends and acquaintances come and seek advice?

They do, but I don't give any because people should be responsible for their own decisions; imagine when things failed to work out.

In your research you have often focused on time series econometrics. What is an area you have looked into recently?

Time sequences have interested me ever since my doctoral studies at the University of Houston, Texas. I started to teach the applied analysis of them after I came back to Prague. After a while, I compiled a book about that which is now in its third edition.

Some of my latest research has combined numerical sequences and cross sections, so it's about panels of data. With my colleague, Ichiro Iwasaki, I was able to put together quite a substantial set of data about companies in developing European markets where we followed what contributed to a company's survival or the circumstances in which they go bust. We examined this question from many different angles. We looked at the impact of the institutional framework in different countries. The impact of institutions on macroeconomic development in individual countries has already been studied quite a lot, but the impact at a micro level has hardly been covered at all. This cooperation led to an article quickly being published in a very well regarded magazine, the Journal of Corporate Finance.

What leads to companies going bust or – on the other hand – contributes to their survival?

It is possible to evaluate the health of a company, which is obviously very important, using classical economic indicators: examining the return on assets or profitability, if the firm relies more on internal financial sources for financing its operations or if it has to borrow. There's nothing surprising in that. But we wanted to go further in defining the influences, using not only such financial indicators but also looking at other factors which normally would not be used or for which it would be difficult to gather the data.

It was very interesting to determine that the quality of institutions had a clear influence on the company's chances of survival. From all the factors which could characterise the quality of institutions,

Economics should map out and give recommendations on what should be done through careful analysis: predicting the future is not the goal.

the two most important were the overall level of the national administration and the ability of the state to effectively keep a check on corruption. It follows that the higher the level of quality of national institutions, the less impact it has on the chances of companies surviving. In microeconomics, a similar concept is described as diminishing marginal returns. Specifically that means that the best prospects for improvements in the institutional environment are offered to firms in countries where the development of institutions is already lagging. In both of the two key results, membership in the European Union and the "anchor" of its institutional rules had a positive effect. Understandably, we came up with a lot of similar results from this research. Nobody else before has performed such a detailed analysis of companies using European data.

Are some of your other analyses similarly unique?

With a colleague from the Institute of Economic Studies, Josef Baruník, we completed an analysis of how closely markets in crude oil and foreign currencies were connected. Most of the world's oil production is billed in US dollars even though it's located in different places around the globe: the Arabian Gulf, Russia, Norway, the US, and South America. The US is the exception where it can evaluate the price for imported oil in its own national currency. So there is a close relation between the dollar and other currencies which are dependent on crude oil. Their value is very sensitive to different economic and political events in the world. It would just take a suggestion that in the future they were vulnerable, for instance as a result of unrest in Arab countries, and there could be wide fluctuations – volatility – overtaking markets in crude oil products but also other assets including foreign currencies.

In our research, we therefore analysed how volatility spreads between oil and foreign currency markets. Specifically, we examined how the overall volatility from this process evolves, how movements occur, what prompts positive and negative shocks, and how volatility develops with regard to the investment horizon according to different time frames.

If there was news about a crisis in Arab countries, what effect would this negative input have on the market?

Because most oil is paid for in US dollars, the possibility of shortages would be felt not just in terms of volatility in the price of oil in dollars, including the value of the dollar, but in the value of other currencies.

An interesting finding was that investors experienced strong volatility from a European economic and political event, such as the debt crisis of 2012, for a long period of time. Europe, as one of the main oil consumers, still does not measure up to the US or China in terms of combined consumption but is still a very important trading partner for them. And so a specific unconnected event such as a crisis in public finances in European countries can lead to volatility in the oil and currency markets.

Isn't there a danger that some countries, such as Arab countries, could try to artificially manipulate and shake world markets with information on the availability of oil?

I am very sceptical that Arab countries could agree long-term on anything like that. They often agree on measures but then some of them break the deal. An agreement over the manipulation of information is quite a sophisticated thing. News about the real situation, such as the level of oil stocks in the US, is much more important, or about various larger and smaller crises. A very fundamental impact would stem from the type of event as the oil crisis of 1973 or 1976. That was an exceptional situation. On the other hand, afterwards there was an increased use of modern technology and a more effective use of oil. In this case, in Europe and America, there were various less significant reverberations.

Nonetheless, as the film *Three Days of the Condor* showed, as long as our civilisation needs to travel by cars powered by fuel or diesel motors, or as long as we need to fly in planes, oil will continue to play a fundamental role. A far bigger factor is the current increased demand for raw materials and oil from China. When that demand reaches such a level that there will be an insufficient amount for needs to be met, it will naturally lead to increased volatility. Increasing the capacity for oil extraction or processing cannot be done in a single day, these need large investments and a lot of time.

China's economic success has already increased the price of different metals...

In my opinion, the development of China is potentially a big problem. I thought so more than 20 years ago and I still do. Not that long ago I came back from a long-term research residency, I passed through Shanghai and it was sad to see the massive levels of air pollution there. When the aircraft took off, for a moment the plane was completely

engulfed in thick fog. The pollution there rises 10 kilometres into the air and you go through that in the aircraft for three or four hours. Once you have flown over most of China it gradually starts to fall away and disappears.

The reason for the pollution is the huge amount of cheap production while the economy is growing so quickly. Obviously, one of the factors is that there are reduced safety standards at work, there is not even any attention given for cleaning wastewater (or the environment generally) while wages remain relatively very low. The production costs are low, so that local producers, unlike their competitors, can manufacture at low prices. With such a structure of production costs, China is able to attract significant foreign investment. On the other hand, the investments do not go into areas where they are necessary when it comes to respecting environmental and safety rules.

How long can China continue on such a path?

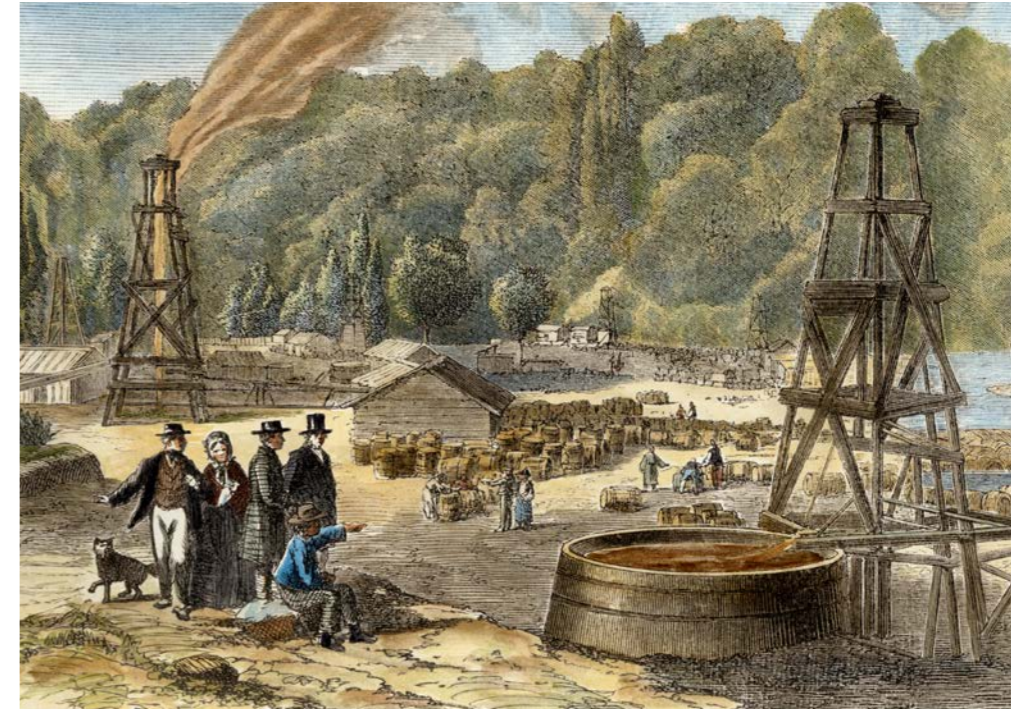
Until people start to look not only at the price but at the quality of goods they buy. Take a look at the incredible amount of poor quality consumer goods that are sold here which basically no one needs but are purchased because they are so cheap and colourful. If people said to themselves they didn't need so many things but put the onus on quality instead, then this type of production would quickly drop.

To be fair, there are also many high quality products now coming out of China, for example, computers and electronics that meet strict standards and where foreign-owned companies have transferred part or all of their production, which is checked and monitored. Thanks to low wages these products can be produced cheaper than anywhere else. And that's perhaps why people have a lot more different tools and instruments than they really need.

From that perspective, does it mean that you yourself use an antiquated brick type mobile telephone?

That's not the point. I use a mobile that phones, on which I can write messages and which allows me to listen to the radio or audio books. I don't need it to look at images. The only thing that tempts me sometimes to consider smart phones are map appli-

Take a look at the incredible amount of poor quality consumer goods that are sold here which basically no one needs but are purchased because they are cheap and colourful.



Oil drilling in Pennsylvania, 1885 woodcut (akg-images)

cations. On the other hand, when I am trying to find my way somewhere I can always just ask someone or use normal maps that you can unfold by hand.

In the media, the question of fake news and different types of grapevine disinformation often crops up... do you see that in economics?

Probably, yes. But I will give another example of the use of news. With Balázs Égert, a colleague from France, we tried years ago to evaluate what influence macroeconomic and other news had on foreign currency values. Here it's necessary to be aware of one thing: news that the markets are expecting is regularly released by the finance ministry or statistics office. When the news goes public, its impact depends whether it is in accordance with – or diverges – from market expectations. So when you look at the news you have to focus on the divergence from expectations rather than the news itself.

Then there is the case of news that the market is not expecting and this is perhaps more interesting. In our case, we followed the market reaction to news from central banks – for example an interview with a governor or a member of the bank board on the television or radio. Such types of news cannot be prepared for or anticipated because you don't know when someone is going to say something or what they might say.

We focused on how specific currencies in Poland, the Czech Republic, and Hungary in particular reacted to macroeconomic news and af-

terwards to top members of their central banks both in the period before the big financial crisis and during. We ascertained that before the crisis currencies reacted to various economic announcements about inflation, demand, industrial production and other indicators. During the crisis, it was absolutely not the case. The only news of the type that had any impact was about the overall state of the economy, which is the aggregate Gross Domestic Product (GDP). Before that, the level of GDP was not even noticed. But when problems began, the market concentrated on a single piece of news about how the economy was faring. Concerning the comments of highly-placed central bank members, it was interesting that during the period before the crisis nobody took any notice. During the crisis though, communications from the central bank began to play an important role.

That's linked to another notable finding. In 2013, the Czech National Bank (CNB) began taking an unconventional approach in its currency policy. During this time, interest rates fell to such a low level that the level of the interest rate no longer had any significance for the market and could not be used as an effective tool for monetary policy. The CNB therefore made a pledge that it would not allow the level of the crown to strengthen or fall below the level of 27 crowns to the euro. The Swiss had done something similar earlier. At the beginning, the bank had to spend quite a considerable amount of money to convince the market that

it was serious about limiting currency movements. But later, verbal declarations were sufficient. It was no longer required to spend money when there was some sort of movement on the market, it was enough just to say that the bank would keep to its promise and that it was prepared for foreign currency interventions. That is precisely in accord with what I said and what we showed in econometric estimations. That is to say that during a period when there is a degree of uncertainty verbal communications from the central bank can be a relatively effective tool. Of course, that's only the case if the central bank is sufficiently trustworthy.

If the central bank of Zimbabwe said for example that it was going to keep inflation under control, nobody would believe it, given the hyperinflation that the country has experienced. The credibility of central banks can be gauged in the modern era if markets react when bank representatives speak. Let's take for example the declarations of the governor of the European Central Bank,

Mario Draghi: in 2012 he said that he would do everything necessary to defend the euro. That was enough. The central bank did not have to do anything. All that was needed was a simple declaration and the very next day financial markets started recovering and the overall situation began to improve. Words alone can be a very strong tool.

Do you have other interests besides economics?

Let me put it this way: the field of economics touches many different areas and when the economy is not doing well, other interests that provide intellectual satisfaction are also impacted. But there are a lot of things I am interested in.

I like art very much and have been studying paintings in galleries for around 40 years. I think that painting or drawing is one of the most exceptionally creative activities that a person can do. You can preserve or transform reality in a way that is never repeated.



When you are able to dig up a part of a motor of a fighter plane which crashed more than 70 years ago, it is quite emotionally powerful. And to hold a piece of buckled metal in your hand means coming face to face with Time.

Spitfires forming a V for Victory, 1945
(Photo Ladislav Sitenský)

Which period do you like the most?

My favourite is Impressionism because it captures the transience of the moment and the transformation of nature and the surroundings at the same time. Part of my work is taken up with analysis of time line series. Impressionist painters are masters at capturing the transience of the moment or evolution over time. I prefer Impressionism to some other periods and dislike what I consider artistic outrages such as a piece of twisted wire or a piece of scrunched up paper on the ground or spilt paint with an explanation next to it. Work where you have to listen to a half hour explanation of what the creator meant. For me this is not really art. Art should embody something and convey the artist's experience and be the result of an incredible amount of work. Without considerable work – and some suffering – I'd say you cannot create art.

Are there any other activities you have which are closely linked with time?

I like model aircraft because they provide a window to the Second World War. As a boy, I was devoted to building plastic model aircraft and that seemed to be precisely the kind of thing a small boy should do. Everything was smudged, dirty, and not great looking. But much later, as an adult, I recalled how much putting things together appealed to me and I went back to making models.

For the most part now, I try to put together the story of specific pilots and aircraft, mostly Czech pilots who during the Second World War made a significant contribution to the British, French, and Russian air forces. I have, for example, put together a series of aircraft flown by fighter pilot František Fáber, who originally came from Olomouc, which is also my home town.

For me, it's not just an enjoyable pastime: through the models and specific pilots you can learn and become aware of many things. Sometimes with friends we go to places where I know an aircraft was hit or shot down. Sometimes we are able to dig up parts of the aircraft and from period documentation, we are able to establish what sort of machine it was and who the pilot was. I enjoy studying and connecting specific events with the period because that way it is not just something abstract. When you are able to dig up a compressor from the motor of a fighter plane which crashed more than 70 years ago, it is quite emotionally powerful. And to hold a piece of buckled metal in your hand means coming face to face with Time.

When not so long ago I was aboard a warship in San Diego that was later turned into a museum, I met an older gentleman as I was examining a navy Corsair fighter. We got to talking and he told me he was a former pilot who flew in the same type of aircraft during the Second World War. I told him that back home I had a box with this same model aircraft in it. I copied some of his private photos and made a model precisely like the planes he used

Prof. Ing. Evžen Kočenda, M.A., Ph.D., DSc., is the head of the Department of Finance and Capital Markets at the Institute of Economic Studies of Charles University's Faculty of Social Sciences. The main fields of his research interests are, among others, international finance, transition economies, European integration, and the performance and management and administration of companies.

to fly. I took a snap of the model and sent it to him. I got back a letter in which he kindly praised the result. Due to the age of most of these pilots, that is something that does not happen very often.

How many model planes do you have?

I don't know precisely, around 40. Among the recent examples I completed is a model of the reconnaissance aircraft in which Antoine de Saint-Exupéry disappeared in the Mediterranean not far from Marseille. I made it according to precise specifications. When I put it in the display case, I thought that there was not any room for anything else. But since then I have also squeezed in a Spitfire, the type which was flown by the exceptional RAF pilot Otto Smik. The display case is getting very full, so I am pretty sure I will now be needing a new one.

The research support *Donatio Universitatis Carolinæ* is given to exceptional academic personalities who have especially contributed to the expert prestige of Charles University.

A Temple Full of Questions

Year after year, they go to Israel for several weeks to unveil a new bit of history going back thousands of years. The latest excavation site in which the team of Associate Professor Filip Čapek from the Protestant Theological Faculty of Charles University participated was the Tel Moca site with the remains of a unique temple complex.

STORY BY [Kamila Kohoutová](#) PHOTO BY [René Volfík](#)

There was fantastic news making front pages in the media that your team was able to find the remains of Solomon's Temple. Is it true?

The basic architectural layout of the complex in Tel Moca near Jerusalem corresponds to the biblical description of Solomon's Temple. But we can't say "this is it": it's not that simple. From the Bible we know what it should look like, but a building similar to that of the biblical description in the First Book of Kings has never been found. In Judea, temples and shrines from the Iron Age have been preserved, but they are very diverse in architectural form. Tel Moca is the only temple of the megaron type (originally a simple hall with a rectangular ground plan with one entrance in one of the shorter walls), and besides the above-mentioned literary description which is from a very late period, it has no counterpart in the region. I have to make it clear that it was not us who made the discovery: that was the work of a previous expedition in 2012–2013. Our team is involved in further uncovering and revealing construction phases that preceded the temple itself.

If it turned out that the building in Tel Moca was indeed Solomon's Temple, would that mean that the city of Jerusalem was originally located elsewhere?

That was kind of a provocative idea put forward by my colleague Shua Kisilevich of the University of Tel Aviv, who is conducting our research together with Professor Oded Lipschits. The discovered settlement in Tel Moca is much older than Jerusalem: it is a locality in the fertile Sorek Valley with

plenty of water for farming, especially for growing grain. On the other hand, the original Jerusalem is on the border of the rainfall gradient just before the Judean Desert in less accessible terrain. Maybe that's why this place became a well-fortified Canaan city-state in the Bronze Age in the first place and then the capital of the Kingdom of Judah. Tel Moca could have served as an administrative centre for Jerusalem. Here, agricultural production for the capital could have been collected. In the immediate vicinity of our excavations, there was one of the largest Neolithic settlements in Israel, with an estimated population of about four thousand people. Whether there was a closer link between Tel Moca and Jerusalem still needs to be clarified. One thing is certain, though: if nothing else, the presence of the temple confirms the importance of this site.

Is there a mention of this place in the Bible?

Although the settlement in Tel Moca is large indeed and the local temple is impressive, the Bible provides only a single lead: The Book of Joshua says that it was the city of the tribe of Benjamin. Some researchers have tried to identify the locality as a place in the Bible called Obed-Edom. The story of the pilgrimage of the Ark of the Covenant containing the Ten Commandments tells us that the Israelites took it to battle against the Philistines (a non-Semitic ethnic group, one of the main enemies of Biblical Israel) to help them win. But they were defeated. The narrative then describes in detail the long journey of the Ark from Ashdod to Beth-Shemesh and further through Kiriyyat-Yearim and Obed-Edom to Jerusalem.

Why could Tel Moca be the Biblical Obed-Edom?

From a geographical point of view, it makes sense. Tel Moca is located on the road from Kiriyyat-Yearim to Jerusalem. But so far it is only speculation that needs to be supported by evidence. There are more places associated with Tel Moca. I believe that this site had been intentionally neglected by the authors of the Biblical text. This could be related to Hezekiah's centralization of the cult at the end of the eighth century BC, or to the reforms of Josiah (Editor's note: the king who tried to remove all pagan cults in favour of Yahweh's) a hundred years later. It can be assumed that some places had been deliberately omitted or renamed to destroy all memories of places where temples or shrines once stood.

Because people followed all sorts of cults in them? In the temple complex of Tel Moca unique items were found from a period that we cannot associate with pure monotheism, correct?

That's right. Several statuettes were discovered in 2012 and 2013 in the courtyard of the temple. Among them is a statuette of a horse – it originally also featured a rider, but we are left with only the remains of his feet. Also, an impressive censer (although broken) weighing approximately twelve kilograms was uncovered. Nowhere else have such cultural objects been found. This means that the

image of cults varied within the Kingdom of Judea depending on local traditions. It is no coincidence that the Biblical texts often take note of the varied religious practices across Israel and criticize them.

Can we tell from the findings which religion was practiced in the temple, or which peoples worshiped their gods there?

Until the sixth century BC, cults were undoubtedly very diverse. Temples and shrines initially served various deities. The diverse anthropomorphic and zoomorphic representations of various deities coexisted alongside the increasingly dominant Yahwism, which was to become the official religion. The manifestations of personal devotion and domestic rituals often differed significantly from Yahwism. The statuettes that were discovered in Tel Moca show an interesting resemblance to Philistine cult objects and iconography. They show us that, despite the Biblical interpretation, the Judaic and Philistine cultures were relatively close to each other. Perhaps that is why the Philistines are so often the target of many Old Testament stories. ↪

The basic architectural layout of the complex in Tel Moca near Jerusalem corresponds to the biblical description of Solomon's Temple. But we can't say "this is it": it's not that simple.



Professor Martin Prudký of the Department of Old Testament Studies during archaeological research (Photo by David Rafael Moulis)



Anthropomorphic statuettes found in the remains of the temple complex (Photo by Clara Amit, Israel Antiquities Authority)

The Bible, however, denies such a close relationship.

On the other hand, ongoing archaeological research is increasingly confirming this cultural link. For example, Philistine ceramics, which we found in Jerusalem in the middle of the City of David in previous research in 2017, were initially considered to be imported. However, as became clear based on subsequent research, the pots were made in one of the many potteries in Jerusalem. Petrographic analysis also confirmed that the material is of local origin, not imported. The Philistines therefore had their pottery workshops in Jerusalem, or it may have been the production of local Jewish potters who adopted the practice from their Philistine neighbours. However, this phenomenon is not unidirectional, even in the Philistine material culture, especially ceramics, late-Canaan and early Judaic influences can be traced. We do not learn much about such affinity, the division of labour or trade, but also some religious traditions between the Israelites and the Philistines from the Bible. The explanation is related to the later deliberate self-delineation of specific ethnic entities, which portray the others in strong contrast.

Are you implying that the religious life of Biblical Israelites was different from what is written in the Old Testament?

It was definitely more diverse. According to the Bible, everything was centred around Jerusalem and sacrifice in the Temple. In fact, dozens of small local and rural shrines played a large role. The cult was also practiced within a household or a family. For example, statuettes with prominent female features indicating fertility had a special place in the religion of Israel. They were objects of devotion for centuries until the beginning of the sixth century BC, when monotheism began to be purposefully promoted as a comprehensive response to the

disaster of the destruction of the First Temple and Jerusalem in 586 BC. Based on this tragedy, Israel was religiously thematised in the Old Testament as an eternal community of those who were to serve one God but repeatedly failed to do so. Between the lines, Biblical texts consistently describe how reality was meant to look, which implies that this is a retrospective view.

Can you give us a specific example of such an interpretation?

Consider King Solomon. He is first described as a pious sovereign. Later, however, we learn that he had many wives and mistresses who led him astray. Then he had a revelation that his kingdom would disintegrate because of its deviation from Yahwism. The Biblical text is used as an instrument that says: whoever follows the rules will end up well, or at least will not be forgotten if they are able to review their actions and see their failings. The context of these rules is defined religiously, by the belief in one God, which, in the era of Solomon (rather a fictional than a real figure of the 10th century BC) did not seem to be practiced.

Between the lines, Biblical texts consistently describe what reality should look like, which implies that this is a retrospective view.

Why do the biblical texts try to conceal reality and offer only its idealized form?

The longer I read Biblical texts, the more I realize how they are not only brilliantly written, but above all composed into great narrative units. In them,

what seems to be hidden strangely meets with what is supposed to be a role model. This also determines their educational goal and task for the reader: to recognize that the good is usually given in the form of an ideal from which one is usually far, far away, while a mistake, expressed not only in religious but also ethical and social contexts, is a daily routine. Thus the chosen historical background reveals who is human and who is God.

How does Biblical archaeology cope with often amending the images described in the Bible?

Biblical archaeology originated in the 19th century. Our discipline originally established itself as an endeavour to confirm the Biblical message. Many of the first archaeologists, historians and ancient text experts were also theologians and priests who, with good intent and admirable personal commitment, wanted to shed more light on the so-called Biblical or Israeli times. Fortunately, these labels have been dropped because they also carry undesirable political undertones. However, various archaeological findings now show us that not everything in the Bible is historically provable. And it never was the goal, because the texts are mainly a theological message from a specific time for a particular community. This understanding first came to European and American researchers, and later also to Israeli archaeologists, who had a different mission in the first two generations than to challenge the territorial and historical claims of the modern state of Israel. We had to learn to read the Bible critically and admit that it was written with a certain purpose. Biblical archaeology or however else we call it, is also and above all one of the specialized sub-divisions of archaeology.

In your work, you actually relativize the Biblical message. Isn't that undesirable for someone who works at a theological faculty?

Quite the opposite: the cooperation of theologians, historians and archaeologists is very important. We can complement one another very well. Thanks to archaeology, we can imagine the lives of people who wrote the Bible much more specifically, and the findings provide important information about their religious beliefs. Of course, we work with hypotheses and theories that either prove themselves over time and are further developed, or are rejected as misleading.

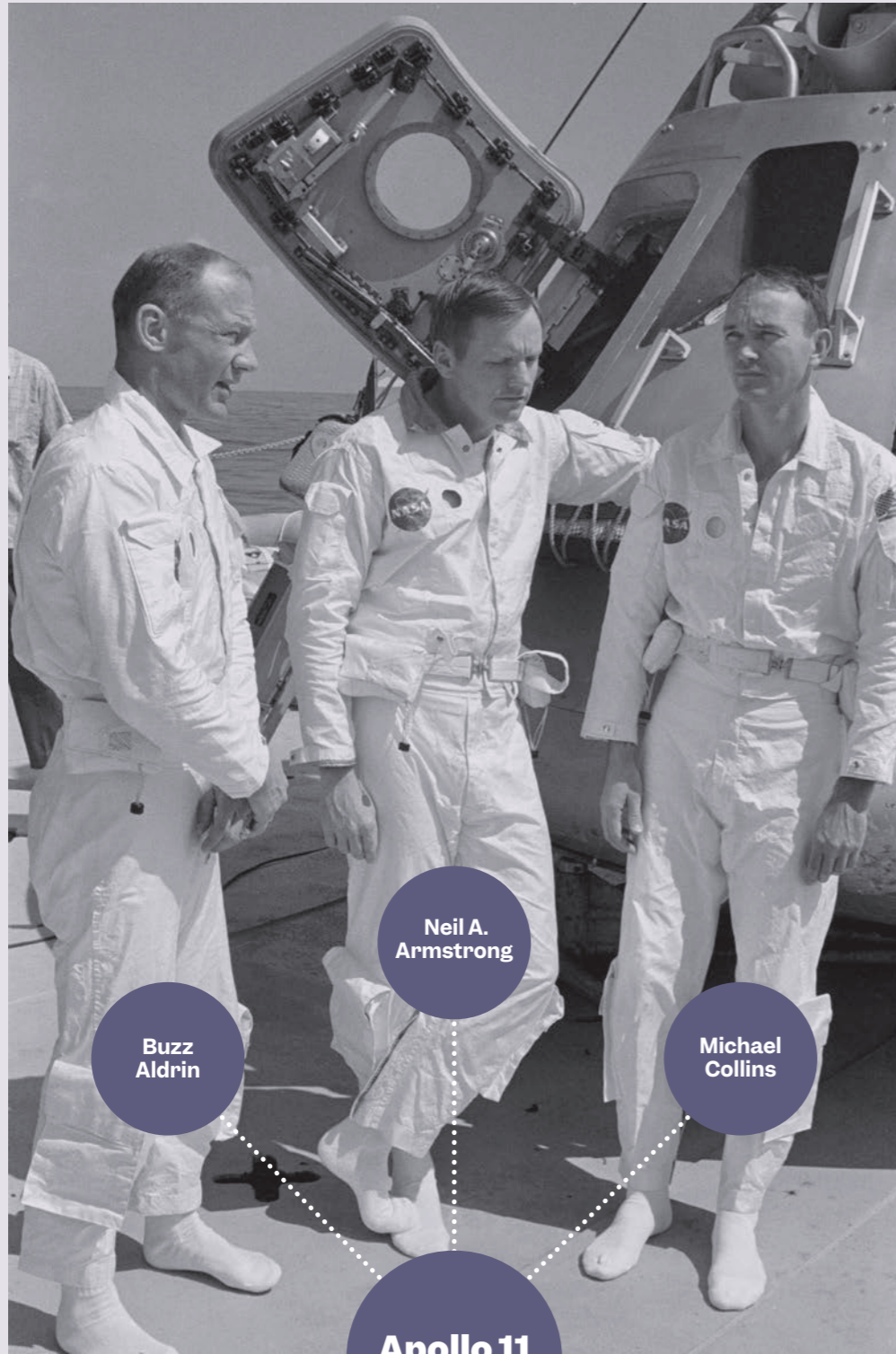
Working on excavations in Israel offers students of the Protestant Theological Faculty a unique professional opportunity. How did you manage to start this programme?

I have always wanted to participate in the excavations in Israel, because a good knowledge of the archaeological context is essential for studying ancient texts. When I studied in Heidelberg in the 1990s, I had the opportunity to travel to Jordan

with Professor Weippert, whose lectures I attended, but I did not have the resources for such an expensive trip. At that time, I made the point that if I could go to Israel to do archaeological research in the future, I would try to involve students. Thanks to Professor Oeming, also from Heidelberg, my wish came true. I could take part in the excavations in the Ramat Rachel area and eventually in other places. Finally, this year, we made it to Tel Moca, which is an ideal place for practicing research skills.



Associate Professor **Filip Čapek, Ph.D.**, teaches Biblical Archaeology at the Protestant Theological Faculty at Charles University and is a researcher at the Centre for Biblical Studies of the Academy of Sciences of the Czech Republic. He has been cooperating with universities in Tel Aviv and Heidelberg, including the participation in regular interdisciplinary conferences in Prague and Tel Aviv. Since 2013, he has travelled with his students to excavation sites in the ancient city of Tel Azeka every year and since 2016 has been involved in research in and around Jerusalem, including the site in Tel Moca, reopened this year.



Buzz Aldrin

Neil A. Armstrong

Michael Collins

Apollo 11 crew

The Apollo 11 Moon Landing – Is it time to go back? Or should we aim for Mars?

The Moon has fascinated us for most of recorded history: a guiding light on dark seas, a sacred disk illuminating the heavens, a symbol of the unattainable, a god. For most of human existence, its stark, cratered surface remained impossibly beyond reach. All that changed 50 years ago, on July 20, 1969.

STORY BY Jan Velinger PHOTOS BY NASA, Shutterstock

“We choose to go to the Moon in this decade and to do other things, not because they are easy but because they are hard.”

— U.S. President John F. Kennedy in his famous Moon speech at Rice Stadium in Houston, Texas on September 12, 1962

As some 500 million people watched a live televised broadcast (the largest ever TV audience at the time), the commander of the Apollo 11 mission Neil Armstrong emerged from the Lunar Module called the Eagle and – in his NASA spacesuit – became the first man in history to step onto the Moon’s dusty surface.

The words he spoke would become one of the most memorable quotes of the 20th century:

“That’s one small step for a man, one giant leap for mankind”.

The race to the moon

Reaching the Moon had been a task of unprecedented proportions: financing and preparation in scientific research called for enormous dedication, ingenuity and progress. Early milestones by the Soviets included the first manmade object in orbit (Sputnik 1 in 1957, which came as a shock to the US), the first man in orbit Major Yuri Gagarin in 1961 and the first female cosmonaut in space, Valentina Tereshkova, in 1963.

The early milestones were not only a feat of scientific success and human bravery but also propaganda coups for the Soviets. Back in 1957, when the first attempt by the US to launch a satellite aboard the Vanguard rocket failed (it fell back to earth from the height of just a few metres and exploded), the Soviet Union’s Nikita Khrushchev boasted “America slept under a Soviet moon”.

Some argue that although the Americans trailed, they were not as far behind as first appeared.

Milan Halousek is a publicist and well-known populariser of space program history, formerly with the Czech Space Office (CSU):

“The Soviets were fierce at the start and the Americans were slower; but they were also more careful. While the cabin in Project Mercury was ready for its first human test pilot, they still opted to send a chimpanzee instead in January 1961 – in case anything went wrong. Alan Shepard could have flown already at that time but safety won out. Technological advances and success in more complex projects like Gemini and of course Apollo

itself would ultimately give the United States the edge and it was there that the Soviet Union would end up floundering... and fall behind.”

Back in 1962, Kennedy had stressed in his speech at Rice University how much of a priority getting to the Moon – and getting there first – would be.

“We mean to be a part of it, we mean to lead it,” he said.

In the same address, the American president outlined the enormous costs and made clear that anything less than a complete commitment would be unworthy of the task of putting astronauts on the moon.

Publicist Milan Halousek again:

“In his speech to Congress in May 1961, Kennedy said the US should land a man on the moon within a decade. It was an important and galvanising moment: to send astronauts there and to return them safely to the Earth. There is no question that solving all the problems successfully – within such a short timeframe – was a huge task: much of the necessary technology did not even exist yet and would have to be invented. Then, Kennedy was assassinated. Maybe that, however, was even more reason to push for success.”

Sacrifice, dedication, enormous risk

The American space program, says Halousek, eventually gained the advantage with Program Apollo (which followed Gemini and Mercury). The first crewed flight within the program was Apollo 7 in October 1968. Apollo 8, the first crewed spacecraft to go beyond low Earth orbit and reach the moon, orbit the moon and return home, was in December the same year.

The space program had also pushed ahead despite earlier setbacks and tragedy: the deaths of astronauts Gus Grissom, Edward White, and Roger B. Chaffee, the crew of Apollo 1. They died when a flash fire broke out in their command module in 1967 during a pre-flight test. The tragedy underlined the enormous danger of space flight – a grim reminder that despite the best planning, anything

could still go wrong at any moment. US President Richard M. Nixon secretly had two versions of a speech prepared for the Apollo 11 mission in the event that Neil Armstrong and Buzz Aldrin ended up stranded on the moon’s surface left to die. There is always danger when it comes to manned space flight, Milan Halousek says: risk can be managed or reduced but never 100 percent.

“The Saturn V rocket plus the capsule had some five million parts so even if things were minimised and reduced as much as possible, the chances of something going wrong with fatal results was still fairly high. And of course there were mistakes, there were failures, Apollo 1 and later Apollo 13 (which suffered an explosion in the service module).

“Luckily, at the most important moment, in July of 1969, the Americans avoided catastrophe. But things could have gone wrong: had the motor failed on the lift-off from the Moon’s surface when they had no backup engine, Armstrong and Aldrin would have died.”

Nerves of steel

On July 20th, 1969, a Sunday, at 12:52:00 UTC Armstrong and Aldrin began their descent to the Moon aboard the Eagle it landed at 20:17:40 UTC. The descent was not without problems: during landing, 1,800 metres above the Moon’s surface, the LM guidance computer sounded the alarm. The situation was serious, Milan Halousek says:

“Several things happened at once: the Eagle had separated from the command module where Michael Collins remained in orbit around the Moon. Armstrong and Aldrin – aboard the Eagle – began their descent and there was a final decision on Go-No Go to decide whether they could land. And that’s when the guidance computer reported a mistake categorised as a “1202”. It meant the computer’s systems were overloaded – and that was a problem.”

Houston reacted quickly but, in effect, experts said later the landing should have been aborted.

There is always danger when it comes to manned space flight, Milan Halousek says: risk can be managed or reduced but never 100 percent.

“Computers then weren’t what they are today: basically they ran pre-programmed modules which could not be changed but were set. As still more alarms sounded, Armstrong did the only thing he could.”

There were only seconds to take a decision and those seconds meant that the lunar module overshoot its original landing site. Heading for a deep crater, Armstrong took over manually, with a poor view of the landscape outside through one of two small triangular windows. Fuel was running out quickly and the Eagle landed with less than a minute of fuel left. It touched down some six kilometres away from the original planned site but the crew was unharmed.

“Armstrong had such a soft touch that although the module’s legs were supposed to compress, they didn’t. That meant that the outside ladder was higher off the ground than had been expected. When he came out, Armstrong had a moment when it looked like he was reconsidering continuing, but he was actually gauging the height of the jump to the ground.”

An inspiration for all humankind

The successful mission to the Moon of course “changed everything”. To this day, many remember exactly where they were when the Eagle landed, either watching live on TV or when they heard the news, both in the Free World but also in countries behind the Iron Curtain such as Czechoslovakia. ↩



Both Armstrong and Aldrin spent a little over two hours on the Moon's surface, taking samples and conducting scientific tests before preparing for the return: to re-join the command module and begin the two-and-a-half day journey back to Earth.

Reaching the Moon was seen by many not as victory for the US (although it effectively ended the space race) but for all humankind, paving the way for innovation and technology we are still benefiting from today. Certainly, Soviet leaders were dismayed their own space program failed to reach the Moon first or at all. The US had succeeded.

Generations since have been inspired by the original footage of Armstrong and Aldrin and what they and fellow crew member Michael Collins accomplished.

It seems incredible that the US reached the Moon in 1969 and would return five more times by the end of 1972 but not once since.

What next?

Petr Brož is a Charles University graduate and scientist at the Czech Academy of Sciences' Department of Geophysics. His focus is volcanism across the Solar System with a special emphasis on Mars. At 35, Brož was nevertheless born long after the last Apollo mission ended, but he cites the moon landing in 1969 as a pivotal moment and huge inspiration all the same.

"From my perspective, landing on the Moon is the single greatest achievement of humankind. I believe it was the most complex project we ever set our sights to and it was great and it was very inspiring to read about it or watch documentaries about that time and I am sad I couldn't witness it. I would have loved to have seen it."

Like many fellow scientists, he says even today we are still feeling the benefits of advances that came out of the space program.



A stamp featuring Commander Neil Armstrong on the Moon.

"There is no doubt we learned a lot: we made huge technological progress, we learned how to handle projects of enormous complexity, we developed computers and made advances we now use every single day.

"From a scientific point of view, we benefited enormously from having gotten people to the Moon and their actually having taken samples on the ground and having been there, because it allowed us to verify our theories first-hand. They were able to do scientific work in the short time they were there, to investigate the area, and that is incredibly worthy. Samples from the place make all the difference. Everything else is just theory.

"That is something we can see now when it comes to exploration on Mars or exploration of other bodies in the Solar System. It is much harder when we see things only from orbit and we simply haven't got the necessary samples. While we can send robots there and rovers to investigate and get a lot of information, having people on the ground makes a difference: we are basically missing ways to verify our theories."

Recent years have seen renewed pledges by the US to return astronauts to the Moon or to begin planning for manned missions to Mars, seen by some as a logical steppingstone for colonisation – one day. What is lost on no one, however, are the enormous costs that would be required to reach the Red Planet (no doubt exceeding the cost of the original moon landings) as well the huge technological advances needed.

Should we return to the Moon?

By appearances, the scientific community is divided: should humans return to the Moon first? Or aim directly for Mars? Here's what Petr Brož says:

"Some think that we should go the Moon first for a number of reasons. For one, we could test new technologies there and learn much more about surviving in such a harsh environment, it is certainly easier to reach and – in the event of problems – certainly easier to escape from if the need arises. Others think we should aim for Mars straight away, not waste money and go directly to Mars. The more difficult mission, something not done before, would force us to think differently to achieve such a goal. Personally, I am in the camp that thinks we should aim for Mars directly but I totally understand the thinking that says we should return to the Moon."

In his view, going to Mars would be far more inspiring than going back to the Moon, capable of capturing the public's attention and gaining the public's support, a dream that would fuel the imagination today much as going to the Moon did in the 1960s. He places a lot of stock in entrepreneur and visionary Elon Musk and Space X and others in the private sector as being able to play an important role.

One drawback: a project of such proportions cannot work without political will and strong government engagement.

Saying that something is impossible because we didn't try it, is not the best way forward. At least we need to try and then we can say if something is impossible or not.

For example, the current American President Donald Trump has at times expressed support for missions to both the Moon and Mars... but tweets this year cast doubt that, at least from his perspective, going to the Moon still made sense. He tweeted on June 7, 2019 that:

"For all of the money we are spending, NASA should NOT be talking about going to the Moon – We did that 50 years ago. They should be focused on the much bigger things we are doing, including Mars (of which the Moon is a part), Defense and Science!"

Which will it be? NASA is said to be currently preparing a mission to the Moon by 2024 under the Artemis Program but some experts see that as optimistic. News sites have reported that the single biggest obstacle may simply be funding, noting that the entire Apollo Program cost 25 billion dollars, which – adjusted for inflation – would be more than 280 billion today.

Scientist Petr Brož agrees the biggest problem will be for anyone to agree on covering the costs. Nevertheless, he thinks we should try to achieve reaching Mars, even though it may seem impossible at present.

"Saying that something is impossible because we didn't try it, is not the best way forward. At least we need to try and then we can say if something is impossible or not. That was exactly what Kennedy wanted from his engineers and scientists: to try something which seemed impossible at that time."

Lobsters on Titan

Another question is whether we should even be aiming for either: after all, there are still plenty of other important missions in various stages of development that also require funding and which too can change how we view life, the universe, and everything in it. Such as unmanned space flights – and above all robotic landers – that can reveal much about our solar system.

Ondřej Čadek is a professor at Charles University's Department of Geophysics at the Faculty of Mathematics and Physics in Prague who remembers when the Eagle landed (he was nine) and he too cites it as the greatest human achievement. But he is unsure going back to the Moon today makes

sense. Not when there are other important discoveries out there to be made, equally deserving of funding and rigorous scientific study and attention.

"Sending humans to space is expensive and because it is expensive you have to take money from other projects. There are great projects now being planned to explore the outer parts of the Solar System – the icy moons of Titan or Europa, which could host very primitive forms of life.

"And I am just afraid that all the money will be pooled to pay, for example, to return people to the Moon. The thing is, if we return there, I don't think it will answer new questions.

"By contrast, if we are able to confirm life elsewhere in the solar system, that would tell us that life can exist anywhere. Of course, my field focuses on finding suitable areas where primitive life could exist – salty oceans under huge layers of ice. I would like to know if there is life elsewhere: could there be microbes in seas under the ice?"

Professor Čadek reveals that a colleague from NASA who was an esteemed guest at Charles University joked that one reason for the exploration on icy moons is to learn if there might be "tasty moon lobsters" under the ice. Imagine importing those!

Jokes aside, there is simply a fear that there is just not enough funding to go around. Priorities need to be set for either returning to the Moon, going to Mars, and other important research. But no one wants to see other highly important scientific research scrapped as a result.

50 years on

Fifty years ago, NASA had ambitious plans for the future of manned travel, a space station, a base on the Moon – plans which went unrealised.

The last manned crew to reach the Moon was Apollo 17 in December 1972 and the last man on the moon was Commander Eugene "Gene" Cernan (who had Czechoslovak roots). NASA went on to develop its space shuttle program and we have not been back to the Moon since.

Was it a mistake not to continue?

Some are optimistic we will successfully return by 2024 or perhaps by 2028 as was originally planned but Milan Halousek points out that even with today's advances it will not be easy. In his view, although we have the knowledge there is still a lot that will have to be tested and re-learned.

"Manned space flight today still has important scientific results, that's without question. But in my opinion we need to return to the Moon. Today we are capable of sending people 400 kilometres into orbit; 50 years ago, we sent astronauts 380,000 kilometres from Earth."

To this day only 12 astronauts – all from the US – have ever walked on the Moon. Will that change? Will anyone follow in their footsteps soon?

Drought: A New Threat for Humanity



People living in underground chambers only coming out into the open to see the burnt countryside around them: is such an apocalyptic scenario likely? Will the world of the future be uninhabitable because of drought? Anthropologist Markéta Zandlová has some clear views about that.

STORY BY **Lucie Kettnerová** PHOTO BY **Luboš Wiśniewski**

In what way is an anthropological perspective on drought different from that of a climatologist, naturalist, or hydrologist?

From a science perspective, drought is a phenomenon which is possible to measure through readings and satellite images through which we then estimate how it will develop over a matter of days, months, or years. For anthropologists, the key is to study specific localities over a series of years, speak with individuals, and follow how this phenomenon changes over time. Take for instance a

grandmother with a dried-up well and fields: we need to learn what she does under such circumstances, what measures can be taken, what information she can access and what kind of help she needs and whether she is able to raise the issue with the local mayor.

How do you define drought?

Drought is not an “absolute” phenomenon. Naturalists say that it is not possible to look at tabulated data and say that if it rains in such and such quantities then that represents a

drought. It’s relative and, depending on the geographical area, can mean different things. The web portal Intersucho monitors anomalies in rainfall from long-term averages in different areas: drought in South Moravia is different from drought in the Beskydy Mountains.

People are talking a lot about this subject. Has this year been so different from the past?

We have had dry summers now since 2014, which is now more than five years.

But society is now reacting with a lot more sensitivity, which does not mean of course that this year was dramatically different from 2015. But drought is a persistent feature. What one year was seen as an exception and the second year as an acceptable reoccurrence is becoming a regular event. But it should not be that way; climatologists tell us that it is not statistically likely to be like that for 10 years in a row.

With regard to the current situation, I would say that when an event regularly threatens our everyday routine, it sets in motion a train of events: politicians react, strategies are drawn-up, you get declarations from commissions and politicians. The ministry of the environment or agriculture takes up the topic, various seminars and conferences are held in the lower house, and the media gets involved. Then, later, that has repercussions on the actions of local administrations. The latest declaration by the UN Intergovernmental Panel on Climate Change underlined that the current ecological situation is really uncertain. And when you match up this report with the exceptional drought we have had, the problem starts to become even more apparent.

Has the fear of water shortages already begun to change people’s behaviour?

From a Czech context there has been quantitative research – the last instance for example in a publication of research about the relationship between Czechs and the environment by Brno social ecologists. It showed that people perceive drought as a serious problem. Qualitative research about specific behaviour though is still lacking. Individually, you become aware that people are beginning to think about how they can reduce their personal water consumption. They perhaps make some small changes, spend less time in the shower, deepen their wells, or re-use the water for washing vegetables to water plants in the garden. A series of initiatives are also being taken at a regional level, the creation of bogs, ponds, windbreaks, groves of trees and so on.

Your research has focused specifically on the Nové Mlýny and Kyjov areas in South Moravia. Why did you specifically chose these places?

I cooperated on a grant with colleagues from Czech Globe and the Silva-Tarou-

ca Research Institute for Landscape and Ornamental Gardening and they knew these areas and had mapped them. If we wanted to know how the countryside had changed over the last 100 years in relation to water resources – and on the basis of research to predict what would happen over the next 50 years or so – then we needed sufficient information. We had to calculate from general information the likely consequences of climate change for a specific location and be able to predict, for instance, if a tree standing before us would disappear in 50 years (under the worst possible scenario) or if birds would be able to nest in the tree and if they would have one or two broods and so on.

We selected the two locations because they had both been quite badly affected by drought but each had a very different natural habitat, particularly concerning water sources. Nové Mlýny was an automatic choice thanks to the fact that a reservoir had been created there and we had a good overview of what had happened to the countryside as a result. The Kyjov region was totally different with fields and vineyards where we could observe, for example, soil erosion.

How did you get the opinions of the local people? Did you go and speak to them?

We spent a week in South Moravia and talked to local farmers, vineyard managers, mayors, hydrologists, basically anyone affected. We also spoke with people who did not live in the area but whose work was linked to it. There were, for example, employees of the State Property Fund or the waterways and drains authority in Břeclav.

I see the positives from an anthropological point of view in that it emphasises the contexts of the phenomenon. It’s not possible to come to terms with the problem by isolating it from reality and trying to dissect it – you can’t get a proper understanding that way.

Are you optimistic when it comes to solving drought? Or should we be worried about the future?

We try not to rely just on mainstream information but to look at the problem from different angles. I personally believe that the situation is very serious and alarming and that we do not have much time to make radical changes. It’s partly about everyday changes in the way that individuals are behaving but primarily about structural changes in the functioning of society: chiefly cutting emissions of greenhouse gases and also consumption.

In Europe, many people are trying to act ecologically by sorting plastics, reducing car ownership and trying to use local produce, which is certainly good. But these are decisions by people who are without economic worries. Many in the so-called Global South can only make choices about changing their daily behaviour with difficulty precisely due to the existence of global inequality since they are facing totally different economic pressures. The US and China are each in different situations. That’s why I fear that in the short term it will not be possible to see the wide-scale changes that are needed.

When we talk about climate change, there are fears that mankind will disappear in 50 years. I don’t think that will be the case. But nature and living conditions could change dramatically and in some places there will be shortages of water and in other places islands will be flooded after icebergs melt.

Migrations can be expected from places where people will no longer be able to live to locations where it is still possible. All of a sudden, there will be too many people wanting to live in habitable areas and the world population is already around eight billion.

I do not expect a catastrophic scenario of a few thousand people surviving underground. But it is clear that we have to start making changes.

Mgr. et Mgr. Markéta Zandlová, Ph.D., works in the Department of General Anthropology at the Faculty of Humanities with an emphasis on socio-cultural studies. She is the main organiser of the multidisciplinary project: Drought stories: Local Implications of Extreme Climatic Phenomenon, Their Perception and the Willingness of Participants to be Involved, which was supported by a grant from the Technological Agency of the Czech Republic. The goal is to encourage communication between interested parties and to educate the public about the sustainable use of water.

Embracing the Richness of Early Music

Researchers can recreate the music of the Middle Ages using just the surviving musical notes. Lenka Hlávková describes the work of the music researcher.

STORY BY [Kamila Kohoutová](#)
PHOTO BY [Luboš Wiśniewski](#)

This year marks 110 years since the first professorship was offered at the Institute of Musicology with Zdeněk Nejedlý taking up the post in 1919. How does the world of musicology compare today?

It continues to focus on the traditional area of older music, which was one of Zdeněk Nejedlý's main interests and is still very much the focus. At the same time, we are not just medievalists. From an historical perspective, we also focus on European music from the 18th century to today and the study of contemporary musical culture, where we use approaches from the fields of cultural analysis, ethnology, and anthropology.

If we stick with your specialisation, music from the late Middle Ages, how do you research music that is several hundred years old?

Musicologists mainly work with surviving musical manuscripts. Some of these are located in the private collections of compositions put together by

university scholars and – from their size and format – look like thick exercise books. At the opposite end of the spectrum we can find voluminous, richly decorated collections – such as the Codex Franus – a parchment manuscript from the Museum of East Bohemia in Hradec Králové which is 70 centimetres by 45 centimetres and weighs around 50 kilograms. It was commissioned by a rich draper from Hradec Králové, Jan Franus, who paid what was then the equivalent of the price of a townhouse for it to be made. People in the Middle Ages feared for their souls and wanted to ensure they would be saved during the Last Judgement: the rich therefore gave considerable financial amounts for the creation of altars, paintings, or books which could be used in church for singing.

A musicologist dealing with music from an older era must first of all learn how to read musical scores that make use of historical notes. When we rewrite music into the modern form of notes so that we can study it and use it, we are doing something similar to what a translator would do when translating text. That's why all historical musical scores are translated into today's common understandable form. You have to, of course, carry out the conversion into the modern form in a way that does not deform the original music itself. How to do that properly is a subject in itself of a whole scientific discipline: the review of musical scores or musical philology.

What sort of music did people listen to in the Middle Ages?

Consider that every person in the Mediaeval listened to music at least once a week and that was at Sunday Mass. But masses were held daily and if there was a church school, then the pupils would have to sing at those. Basically that means it was ubiquitous: religious music then was the Latin Chant with extra voices added during the Middle



PhDr. Lenka Hlávková, Ph.D., is the deputy director of the Institute of Musicology at the Faculty of Arts. She specialises in the musical culture of Central Europe in the late Middle Ages. She also leads the Czech team involved in the international Sound Memories project which examines to what extent our predecessors used their collective musical legacy for political and cultural purposes.

Ages. In the Czech Lands in the 15th century, solos and choral renditions of religious songs were very popular. Contemporary academics are surprised to learn that every student and teacher at university in the Middle Ages sang daily: their presence at daily prayers in the university chapel was one of their obligations.

How did music spread?

Well Europe was a lot more advanced in the Middle Ages than we imagine today. Culture, and that includes music, spread freely. Borders effectively did not exist and neither did authors' rights in today's sense of the term. Not at all. Once a work

began to spread, either by being heard or in written form, it could easily be transformed in all sorts of ways. Someone could add a third voice because two didn't seem sufficient, someone else could remove the third voice because they didn't like it, and in that manner the piece could be reworked or embellished. Some types of music, especially songs, were often very variable.

Do musical creations from the Middle Ages influence today's music at all?

If we consider Mediaeval Christian culture in the general sense of the word as one of the roots of today's European culture, then the same holds for

music. Gregorian chants have never stopped being sung in churches and that's a direct and enduring link between the Middle Ages and today. The way in which rhythms are written which we use today was thought up by a French intellectual at the Sorbonne in Paris at the start of the 14th century. Notes have changed visually, angular shapes have become more rounded and the whole system has been simplified; but in principle every child in music school learns to think about the relation between the length of notes in the same way as in the Middle Ages. When we go through historic towns and walk in streets dating from the Middle Ages, we admire Romanesque and Gothic architecture or the creative artworks from the time and we regard them as a normal part of today's reality.

Performing music, of course, has a rather ephemeral life and ceases to exist when the performance comes to an end. But the collections of musical compositions in themselves embrace the enormous artistic and intellectual richness of the time which we can today recreate thanks to specialised performers. Not just Gregorian chants, but many other types of Mediaeval music have frequently inspired composers from the 20th and 21st centuries so that their own artistic creations hark back to techniques that were already several hundred years old. The well-known Christmas carol "Our Lord Jesus Christ was Born" was written down around 1500 but it is certainly a lot older. The Middle Ages are present today in a lot more ways than we can imagine.

The links with the musical past are the main focus of the European project, HERA Sound Memories in which you are participating alongside other European institutions...

The European grant programme HERA is aimed at projects which are normally excluded from humanities support. The main focus is not just on primary research but also spreading the results in an accessible format amongst the wider public. The musicological project Sound Memories is led by Professor Karl Kügle from Utrecht with support from colleagues from Cambridge, Zurich, Warsaw, and Prague. The non-academic part includes partners from the field of the interpretation of old music, such as the ensemble Schola Gregoriana Pragensis, La Morra, Anonymous III, or Trigon, but also musicians active on the contemporary scene. The Sound Memories project covers music ranging from the 13th to 16th centuries which did not just follow innovative lines, which you can find out about in the usual explanations of musical history,

but also those which to a large extent turned back to the past. For example the Latin hymnals of the Utraquist Church show that in Bohemia in the 15th and 16th centuries compositions created before the Hussite Wars were still popular and consciously being sung in their traditional form and for that the Czech lands were seen as backward in comparison to Western Europe. We of course know today that "modern" music was just as well known in the Czech lands but the old musical repertoire represented a certain unquestionable value. Musical culture was, and is, multi-layered and our project seeks to take such a perspective of the late Middle Ages and early Renaissance into account.

Have you encountered any problems in your cooperation with foreign teams?

When formulating the grant application with Polish colleagues we became aware that the Iron Curtain heritage has not disappeared even 30 years after the Velvet Revolution. Some colleagues from the West commented that we had some very interesting sources and that they should start to be researched. So they were indeed surprised when they realised all the research that Czech and Polish musicologists had published even before 1989 and which had not been the subject of international discussion.

We regard one of the important tasks of the Sound Memories project therefore as being to integrate Central Europe more into reflections about European musical history. In the Middle Ages or early Renaissance, the eastern frontier of West European culture, that is its Latin influence, was not East Germany or Austria as during the Cold War, but extended a lot further. We hope that the younger generation will be more open and that the cultural differences of approach of individual teams will be seen as a form of mutual enrichment since borders in contemporary Europe are practically non-existent.

The Humanities in the European Research Area programme (HERA) is part of the portfolio of European grant applications specifically for the support of the Humanities. You can find out more about the possibilities of obtaining such grants by reading the project web pages. The project emphasises spreading research results among the public with cooperating partners outside the purely academic sphere.



1



2



3



4

Codex Franus
Museum of East Bohemia in Hradec Králové

- 1 The Lord's Resurrection (illumination Janiček Zmílelý from Písek)
- 2 Petrus Wilhelmi de Grudencz (1392–around 1453): duo Preformosa elegantis black minuet notation
- 3 and 4 Josquin Desprez (around 1455–1521): moteto Christum ducem, white minuet notation



Insect populations have fallen at an alarming rate

More and more analysis is pointing to a dramatic drop in insect populations in Europe and around the world. A long-term study in neighbouring Germany suggests that flying insect populations dropped by more than 75 percent over three decades. Are we on the cusp of extinction of various insect species?

STORY BY Jan Velinger PHOTOS From Petr Šípek's personal archive

Dr. Petr Šípek, a specialist at the Department of Zoology at Charles University's Faculty of Science, discussed the potential impact.

There is something like 10 quintillion insects on the planet and about one million species! Ten quintillion – that is 10 followed by 18 zeroes!

Ordinarily, people don't think about insects or realize that there are so many and that they are the most diverse group of multi-cellular organisms. But we find insects in most ecosystems with the exception of marine and saltwater systems; otherwise they are present almost everywhere and usually in large numbers.

Despite the abundance, scientific studies around the world are seeing evidence that insect populations are largely on the decline. And the drop according to many indicators is not trivial.

In general, it is very difficult to map insect populations; you mentioned one million species but we estimated that another 5-7 million which have not been described and catalogued before now. Some of them may never be or may disappear before we have a chance, going extinct. The task is enormous.

For a long time entomologists suspected that things were changing but exact numbers are hard to prove. You can count the number of butterflies on a meadow but it is very hard to estimate populations. That said, there is evidence now of big changes: there has been a huge decrease in insect populations and it is no longer possible to ignore.

In daily life, you can notice that there are fewer insects around than in the 1980s and 1990s: we see fewer of them flying around and you have to wipe the windshield of your car far less often than used to be the case. There are also indirect indicators of the change, specifically of populations of

insect feeding birds in ecosystems. If their primary food sources drop, their own population numbers also suffer. There was a major study in the Czech Republic conducted by the Czech Society for Ornithology and scientists from Charles University. They discovered that since 2004 there was around a 40 percent decrease in common species among common agricultural farmland birds. And that is quite a lot.

I would like to ask about the study in Germany from 2017, which surveyed developments for 30 years. It measured flying insect biomass for three decades and is now referenced in report after report.

The funny thing about that is that scientists did not set out to estimate the biomass of flying insects and that was a side-product of their work. They monitored the situation over 30 years and then realised afterwards what they had in terms of data. The samples were unsorted and nobody really knew what was there at first but after all that time they realised they could count the average biomass of flying insects caught per day and according to that they could estimate how many flying insects there were.

What they uncovered was remarkable: that there was a decrease of 2.5 percent per year. This was a long-term trend and this was not a situation with peaks and valleys but a continuous decrease. The study took place at small scale nature reservations so I think it reflected changes to the broader surrounding countryside and the impact of that.

What are some of factors that are likely to have contributed to the population decrease?

The German scientists were not able to point to a single factor but said it could be the impact of several, including what is known as extinction depth, ↩



Mgr. Petr Šípek, Ph.D., is a member of the Department of Zoology at the Faculty of Science at Charles University in Prague. His interests include biology, ecology, taxonomy, and morphology of immature stages of Cetoniinae. He also enjoys nature photography. Šípek is active in popularising science and zoology for the general public.

which means it could be related to changes in the landscape that took place 10 or 20 years before. That makes it trickier to make clear connections. It can be difficult to link extinction to the changes but it can reflect things that happened 20 or 30 years before.

The visible effect was staggered or delayed
Yes. That is correct. And for that reason, in this study, scientists were not able to see which factors had had an influence.

That said, progress has been made: very recently there was analysis published in Biological Conservation in which the authors (having surveyed or studied some 600 long-term studies monitoring insects but focussing most on around 80 or 90 of those) outlined four major causes. The first is the intensification of agriculture and the conversion of land for agricultural use; the second was pollution (either from everyday pollution or from agricultural pollution in the form of pesticides and fertilisers), the third was biological reasons (such as the impact of new incoming invasive species), and the fourth was climate change.

Members of the public often think climate change is a greater culprit, and it can be, but there are cases where it paradoxically helps some species to survive.

Normally, extinction is also part of the natural cycle, isn't it?

That is certainly true but that is not the case here: this is not about natural extinction. The rates are falling too fast. Common species are vanishing and this is not really a natural process. Species can of course go extinct but usually this is a very slow process. And what we see there is an evolution from the old species. So we cannot say that what is happening is due to natural extinction. In fact, it is the opposite.

Many people on their picnic or holiday probably don't mind if there are fewer wasps or certain bugs but that doesn't do justice to the seriousness of the situation, does it.

Insects may seem marginal in our eyes but you have to take into consideration the enormous role they play. Their role in the evolution of flowers and flowering plants, blossoms, was a joint work. It is estimated that 80 percent of plant species are pollinated by insects so their role is massively important: if you lose the pollinators then clearly there will be an impact on the ecosystem.

Then you have insects that prey on other species so if you lose the natural threat, pests can multiply unchecked. It is about maintaining a balance: if you lose predators, new pests arrive easily and usually they are among the most adaptable.

The degradation of organic matter is another area where insects play a crucial role: with my group of students we did tests in the field where we left dead mice. In the spring, these mice are decomposed in 50 percent of cases by burying beetles. If they are not, they are decomposed by flies; as each mouse, around 20 grams, can host around 70 larvae of Calliphoridae flies, which – in the next generation – will be able to produce 400 eggs each.

If you lose the control element of the burying beetles, you risk in the summer and next season a much higher fly population. These are links that we can now uncover bit by bit. The general role played by insects is difficult to gauge, because each have their place or have a different role within their habitat.

Will we humans feel the bite, for example, in food production, when a key insect species disappears?

I think so. We see it already, with the problems faced by honeybee producers. This has an economic impact and we have seen large turmoil about

It is estimated that 80 percent of plant species are pollinated by insects so their role is massively important: if you lose the pollinators then clearly there will be an impact on the ecosystem.

colony collapse disorder which has affected bees in North America and also in Europe and the costs can be tabulated. You cannot have production without pollinators, you cannot grow apples in your orchards without them. So the impact is being felt. When a natural predator disappears, it has an effect and producers then have to use more chemicals against destructive insects.

Generally-speaking, does it mean in the future that there will be less variety in species as some die out?

There may be less variety and there will be a greater evenness of biodiversity around the world, and fewer insects that will be endemic to only some areas. We will lose local assemblages and the local diversity. The make-up of insects from ecosystem to ecosystem will be much more alike, whether we are talking about insects here, the US, or France.

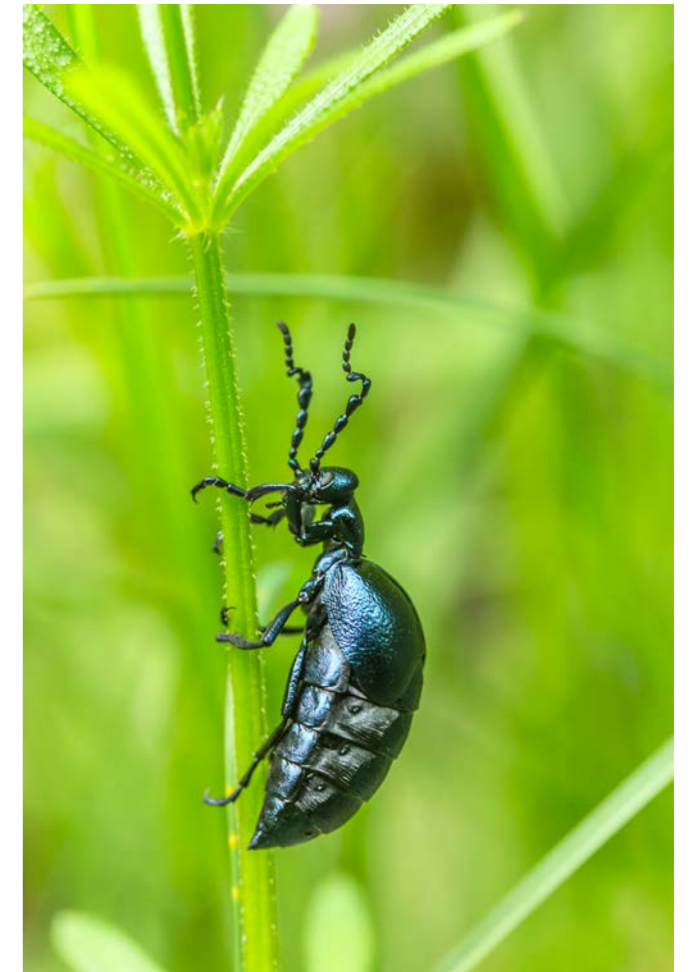
I guess that the big "if" now is what we can actually do to change the trend. I suppose there is a big difference between government or internationally-funded projects which might provide solutions and between small things each of us or citizen scientists can do...

Certainly we can start with ourselves and there are small things each of us can do to help insects. You can help create microhabitats if you have a garden or country cottage, not just insect hotels but small ponds without fish and generally looking after our

countryside in ways that create diversity. Because, what you have across Europe is huge agricultural areas and areas that are neglected – land no one takes care of. And that's bad, especially if you consider that all of the landscape and forestland and meadows have been carefully created and tended to for centuries.

So the management of deserted areas can help insects too. We recreated nature around us and if we just abandon parts now that is a prime setting for invasive species. We need to tend to areas and to not let them be overrun. We have to create good conditions. Grass can be cut in a way that helps insects and promotes biodiversity and heterogeneity.

Then, agricultural firms, forestry companies and aquaculture, need to realise they have a responsibility too: they too are landscape engineers. They carry responsibility not only for food production but also for an impact on how landscape functions. They need to accept that and help look for solutions.



Kip Thorne:

We will see things we never expected



More than three years ago, scientists – for the first time in history – directly observed gravitational waves using the LIGO system. The discovery confirmed predictions Einstein made almost a hundred years before. One of the co-founders of LIGO, the Nobel Prize winner Kip Thorne has spoken at length about the discovery and developments since.

STORY BY [Jan Velinger](#) PHOTO [From Charles University archive](#)

Speaking at Charles University in May, the theoretical physicist said that better detectors by the year 2050 could be sensitive enough to pick up waves from the Big Bang – when the universe was less than a second old.

What convinced you in the late 1960s that there might be a way to one day detect gravitational waves?

I changed my mind after looking deeply at the technology and at techniques that Rainer Weiss had devised. Doing deep analysis of how we could con-

quer the various forms of “noise” that such a detector would face. And understanding that although it would be extremely difficult, there were methods and steps we could take to overcome the problem.

You described such a tiny window of opportunity to begin with, it still seems almost impossible.

To an engineer or a physicist, using light to measure the position of something that is smaller than or almost one trillionth the wavelength of light – is extremely difficult. And making measurements of a

mass that is about a billion times smaller than motion on the Earth, whether wind blowing on trees or water droplets falling to the ground, this is very hard to a physicist or an engineer. It was harder than anything available at the time, so we had to create new technology to make it possible.

Within 20 years and more and more as the century passes, I expect among the most interesting things that we will be doing is exploring the earliest moments of the Universe.

That was the LIGO system (now advanced LIGO) – a culmination of 40 or 50 years of work and involving contributions of hundreds and hundreds of people. The date that made history was September 14, 2015. The amazing thing about it is that the first observation of gravitational waves came just three days after the system went live.

Yes, that was quite amazing. The first detection still remains one of the strongest bursts of gravitational waves that we have seen.

The waves originated in another galaxy 1.3 billion years ago when two massive black holes crashed into each other...

That’s right. We have since then seen or detected other events that happened more than two billion years ago, signals of which arrived over the last two years.

You mentioned that there is an app now available which appears to show a new event very often...

We thought it would be around once a week but now it is a little more than that. We may get to the point with better detectors in the future where we will pick up even more.

Are those all black holes colliding or other celestial events?

They are black holes, collisions of neutron stars, and we think now, although we are not completely sure because the signal was rather weak, that we picked up gravitational waves from what could have been a black hole tearing a neutron star apart. But we need a stronger signal to be sure and to be able to extract enough information.

These are new tools for studying the Universe: will we be able to go back to the moment right after the Big Bang?

Yes, these are things I am expecting we will see and hear. Not with LIGO but with other types of gravitational wave detectors. Within 20 years and more and more as the century passes, I expect among the most interesting things that we will be doing

is exploring the earliest moments of the universe. A fraction of the first second in the Universe’s life and what was happening then.

Obviously we have known for a while now that we live in a rather quiet part of our galaxy and a quiet part of the universe... but elsewhere things are very active and rather violent.

We have seen a lot of violence with radio telescopes particularly and X-ray telescopes more than optical ones. But the particular forms of violence that we are seeing through gravitational wave detection are things we have never seen before: when it comes to black holes colliding, the most violent event other than the birth of the Universe itself... there were no electromagnetic waves, no light, no X-rays, no radio waves, astronomers who work with that kind of radiation could see nothing. Only gravitational waves. So we are seeing events and types of violence that were previously unknown and previously unseen. It is inspirational. It gives me confidence that over the coming years, decades and centuries we’ll be seeing things we never dreamed of.

On a lighter note, the popular show The Big Bang Theory wrapped up recently – how did you enjoy being on the show?

It was a lot of fun, I was on it with two other Nobel Prize winners including Frances Arnold my colleague and friend at Caltech, and we were on the set just one morning and we had been given the script and I had two or three lines of dialogue to say. One was “No, no.” Another was “Dr. Hofstadter, I presume”. The very fact that I had lines meant that soon after I was contacted by the Screen Actors Guild telling me I should join for three thousand dollars! Well I was not going to join for three thousand dollars. But it was fun anyway.

Kip Thorne is a renowned American theoretical physicist and Nobel laureate who received the Nobel Prize in Physics in 2017 (together with Rainer Weiss and Barry C. Barish) for his contributions to the LIGO detector that led to the direct observation of gravitational waves. During his stay in Prague in 2019 – at the invitation of the Learned Society of the Czech Republic – Thorne gave a number of talks, including one at the Blue Lecture Hall as part of the “Bolzano Lectures”. Audiences will recall Thorne’s work as a consultant on the blockbuster film Interstellar, directed by Christopher Nolan. The filmmakers strived to portray what conditions would be like near Gargantua – a fictional black hole.

Discoveries in Egypt: The Tomb of a Palace Official and a Queen's Pyramid Complex

Czech Egyptologists announced two significant finds at an April press conference in the desert sands near the 4,500-year-old pyramid of King Djedkare. The first concerned the exceptional tomb of a high palace official, Khuwy. The second, the name and titles of Queen Setibhor on a column in her pyramid complex, confirming that she was the owner of this monument.

STORY BY Lucie Kettnerová PHOTO BY Luboš Wiśniewski

The archaeological team headed by Mohamed Megahed, a member of the Czech Institute of Egyptology at Charles University's Faculty of Arts, explored Khuwy's tomb during the spring excavation season in South Saqqara. Egyptologists had already known about the tomb for some time because the walls were partially visible below the desert sand. Based on past experience though, they had expected the site to be damaged, with significant items stolen, and without any limestone casing with reliefs.

"We were therefore surprised when we found the underground chamber beautifully preserved. Thieves had repeatedly penetrated into the area above ground level and taken away most of the casing stones, including blocks with reliefs. But underground they seem to have robbed the burial chamber but were not interested in still more stone blocks", commented fellow expedition member

Hana Vymazalová on the state of the site. One factor which might have contributed to the tomb's good condition was the unconventional layout of the underground chambers; instead of the usual entrance through the shaft to the west of the chapel, the underground was accessible via a descending corridor leading from the northern wall. It is possible that potential thieves were confused and could not find the entrance to the underground part of the tomb.

Close links to the royal family

The unconventional location of the entrance can be seen as indirect evidence of the very close ties between the dignitary Khuwy and the ruling family. An additional indication is that the tomb is located at the royal cemetery close to Djedkare's pyramid complex, which has been documented in detail by the team of Mohamed Megahed. The size

of the tomb – at 23 by 19 metres – is also telling. It is larger than the tombs at Abusir, where Czech Egyptologists have been carrying out excavations for 60 years on a concession from the Egyptian government. The two sets of excavations at South Saqqara and Abusir are, however, closely connected. Djedkare was a successor of kings buried at Abusir and his rule continued developments set in motion earlier.

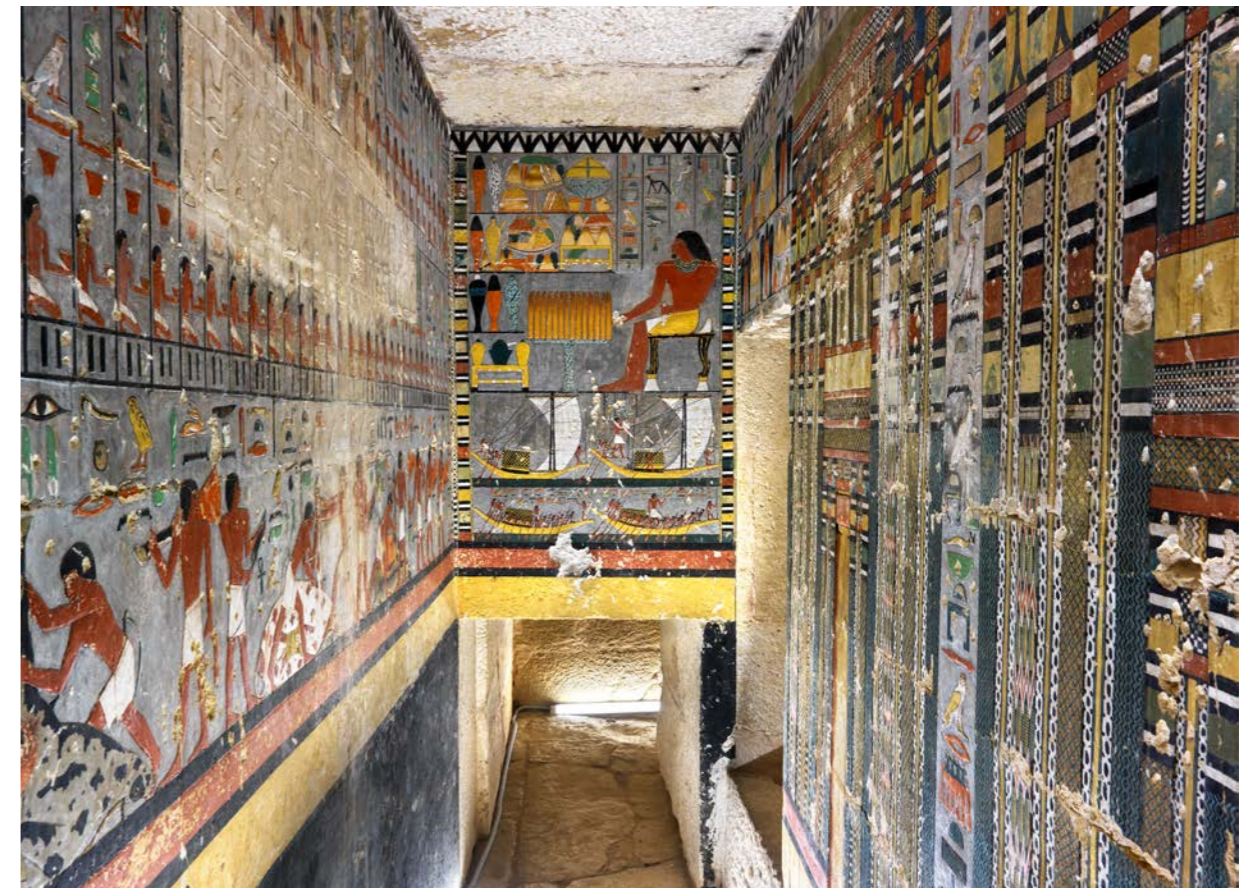
One of the significant finds of the newly uncovered tomb is a large offering table in the above ground structure which bears two shen-signs linked with the kingship. "They symbolise the cyclical continuity of time as well as cyclical renewal connected with the kingship. Therefore the kings' names used to be written in the oval forms of these symbols. It is rare to find them in the non-royal context", stressed Vymazalová, highlighting another exceptional aspect of the discovery.

The burial chamber contained mummified remains of Khuwy's body, which is yet another sign of his exceptionally elevated status because even the highest officials at the time were not usually accorded the honour of full mummification. In the third millennium BC, this right was reserved only for the ruler and his closest relatives. "All of this indicates that Khuwy was clearly part of the innermost circle around the ruling family but we don't

have any direct indication that would show what the connection was. He was not a direct son of the king but we do know which positions and functions he held because all his titles can be found inscribed in the decorated chamber", Hana Vymazalová commented on the evidence about Khuwy collected so far. Some of the most frequently mentioned of his titles are: the sole companion (of the king), the overseer of the tenants of the Great House (i.e. Palace), the legal official of the Great House, or the king's noble. He is also described as the beloved of his lord.

It is also highly probable that this dignitary had use of the royal workshops because the quality of the decoration of both the chapel above ground and chamber underground is of the highest level. The hieroglyphic signs, even those that are only two centimetres large, include many finely carved details, such as birds' feathers and fish scales, suggesting he must have been in contact with the craftsmen who worked for the king himself.

Khuwy's last resting place is one of the earliest known preserved tombs with a decorated underground chamber, though it obviously includes features that were known from other, later tombs but also from the chapels of the time as well. "Khuwy is himself portrayed in the underground chamber as deceased sitting at his offering table surrounded



Khuwy's decorated chamber after the first restoration work (Photo Sandro Vannini)

Djedkare's pyramid complex is located in South Saqqara, a few kilometres south of Abusir (where Czech Egyptologists have carried out long-term excavations) and the pyramid of Djoser, which is the most famous monument in the central part of Saqqara. The excavations by the Czech expedition of Egyptologists have been headed by Dr. Mohamed Megahed with other members of the Czech Institute of Egyptology and students taking part. The project was supported by the Czech Science Foundation and Neuron Benevolent Fund for Support of Science.



Careful archaeological work at Khuwy's underground chamber (Photo Hana Vymazalová)

by numerous offerings, which is a motif that does not appear in later decorated burial chambers," Vymazalová pointed out.

The image of the dignitary is idealised – it does not portray his real appearance but shows him in his youth: thin and with all his strength and vitality. He is in a typical pose with his head in profile and shoulders from front and the arms extended towards the offering table where pieces of bread are piled up. "At the moment we don't know how old he was when he died because the anthropological research has not been carried out yet. After that, we can compare the estimated age with the image's appearance. Ancient Egyptian art though was not concerned with reflecting reality," Vymazalová added.

The whole of the east wall is lined with a list of offerings. The western wall features a motif of two stylised palace facades, which refer to false doors through which the spirit of the deceased could communicate and move between this world and the next. These false doors were originally located on the floor above in the chapel in front of the offering table but did not survive.

Among the relief fragments from the decorated chapel were found personifications of funerary estates that were shown as women bringing offerings to the dead. Agricultural produce of these estates constituted the offerings intended for Khuwy's tomb. "It is interesting that images of two of these funerary estates have been preserved together with their names. These show that one of them was the estate of King Djedkare, while the second was an estate of his wife, Setibhor, which for us is another piece of evidence of his very close relationship with the royal family. These images mean that Khuwy received offerings from the estates of both the king and queen", Vymazalová explained.

Continuing in the autumn

The spring excavations at Khuwy's tomb ended and it was crucially important for the entrance to the underground to be sealed again and the site secured. In the autumn, Czech Egyptologists returned to ensure that the priceless interior decorations were protected. Further restoration work is required and, depending on time and financial resources, more research will be conducted in parts of the tomb which have not yet been thoroughly investigated. Researchers do not exclude the chances of finding a smaller tunnel or entrance leading to another burial chamber where the remains, for example, of Khuwy's wife could be found.

Last year Czech Egyptologists were already working at Saqqara at a site between the royal funerary complex and the queen's pyramid. The results, however, could only be revealed this year together with news about the discovery of Khuwy's tomb. The timing of the announcements was decided by the local Ministry of Antiquities, which oversees research and excavations throughout the country.

An Egyptian expedition had already investigated the queen's complex during the 1950s. But they only uncovered the eastern part of the funerary temple whereas the area between the king's and queen's pyramids remained untouched until last year. The previous expedition also did not venture into the burial chamber, meaning that no one had entered the queen's burial chamber since ancient times.

The site represented a great opportunity for Czech Egyptologists. They found the original debris which gave details of how the site had evolved during the hundreds and thousands of years since the death of Djedkare. "He died during the Fifth Dynasty in the mid-third millennium BC and we discovered finds which, for example, date from the second and first millennium BC up to the Ptolemaic and Roman Periods", explained Vymazalová. "There is evidence of development over thousands of years and we can follow for instance during which periods people were buried at the royal complex and what part of the population this represented. These finds will help us shed light on the development of the society at the time and how these people perceived their own past."

A name at last

The most significant find was without a doubt that which helped to establish the identity of the owner of this burial complex. Experts had until then argued whether it was Djedkare's mother, wife, or even whether it could be the mother of his successor, Unas, and what her role had been. As Hana Vymazalová explained, the size and architecture of the exceptional complex clearly indicated that this woman had immense influence during Djedkare's reign. "Our expedition was lucky in that we found both her name and all her titles on a column in the entrance area, which confirmed that this was the wife of Djedkare. Her name, Setibhor, had previously been unknown."

Setibhor's pyramid complex was among the first to be constructed at South Saqqara at the end of the Fifth Egyptian dynasty. It is the largest pyramid complex for a queen from the whole Old Kingdom. Moreover, its funerary temple includes architectural elements and components which until then had been solely reserved for rulers. These factors and the title of king's wife indicate that Setibhor probably had a key role in helping Djedkare ascend to the Egyptian throne.

Researchers are now investigating the outside of the queen's complex and the area bordering the king's pyramid and aim in the future to deepen their knowledge of the queen. While the researchers now know her position, her name and official titles, other questions about the queen remain. "We are hopeful that future research will be able to give us some more answers. On the face of it, working on the queen's complex might not appear to be so attractive but from a historical perspective it is really very significant", said Vymazalová, admitting at the same time that she has a soft spot for Queen Setibhor.

Experts hope that they will be able to find other evidence dating from the end of the Fifth and start of the Sixth Dynasties of the Egyptian pharaohs. It was an era which witnessed the transformation of ideas of kingship and religious beliefs, when under Djedkare's successor, Unas, for the first time the so-called Pyramid Texts appear on the inner walls of the burial chamber, and the so-called sun temples were no longer built as had been the practice during the previous part of the Fifth Dynasty.



Assoc. Prof. Hana Vymazalová, Ph.D., is the department administrator of the Czech Institute of Egyptology at the Faculty of Arts at Charles University. She specialises in the economic development of Ancient Egypt with a particular focus on the accounting documents of the Fifth Dynasty and the functioning of the royal funerary complexes in the Old Kingdom. She is also interested in ancient Egyptian science, including mathematics and medicine in Ancient Egypt, its development and practical applications in the practice of scribes.



Have Czech pubs changed?

This year is the fifteenth in a row that the head of the Department of Sociology at Charles University Jiří Vinopal has headed a famous survey mapping changes in pubs and pub life. In our interview, he talks about how the Czech pub was reinvented, the role served by classic lowly establishments known colloquially as “čtyřky” (Number Fours), and how social aspects of pub life may never be the same.

STORY BY Jan Velinger PHOTO BY Unsplash, Vladimír Šigut

So what role do pubs play today?

The pub is certainly important in Czech life but I would say over the last few years it no longer holds the central position it once did. There were periods when pubs played a very important role, not least under socialism when there were far fewer choices, especially in villages, where people could meet. There were fewer opportunities, fewer cultural options, so then pubs played a far more crucial role. That has been changing now for more than 10, 15, or 20 years: the pub is not the dominant feature of Czech life it once was.

In one interview you mentioned that the coming of new franchises 10 or 15 years ago changed the landscape quite a bit. Are these franchise venues still pubs in the classic sense?

They are and franchises have tried to build on that tradition. They just wanted to take the concept and modernize it a bit. They have had an impact and improved services across the sector. They changed the image of Czech beer: before, it was associated with smoky rooms and cheap pubs where tablecloths had splashes of yesterday's soup. The new pubs were designed for a more middle or even upper-class client and so the services were improved a lot. Overall hygiene in the bathrooms, the quality of food or the beer, as well as the behaviour of waiters, improved.

Curiously, the success of the first franchise pubs inspired many imitators and many of those stuck to a similar model, creating a kind of uniformity that itself has now gotten a little tired or old. They are all kind of the same and I think are themselves out of steam. People who are founding new mini breweries now or pubs are again going a different route: to be different.

Under socialism, there were different ratings for establishments and the worst was the so-called “čtyřka” or No.4. But for a lot of people that is what comes to mind when talking about Czech pubs.

There were both good and bad things about those pubs. On the one hand, they were the cheapest and were classified as such under communism: there was nothing lower. That classification meant the lowest prices but also set rules for the kind of amenities such establishments could have or even what kinds of meals could be offered on the menu. For example, there was a rule in many cases that they could not heat or cook food but only serve cold meals.

At the same time, such pubs became a magnet for the heaviest drinkers. Not necessarily the lowest on the social ladder, but certainly those for whom beer drinking was a way of life and who spent hours and hours in the pub.

No. 4s were the most widespread types and people from all walks of life met there. Everyone knew these kinds of pubs, you would find them often at railway stations, for example. Paradoxically, at railway stations pubs were officially dvojky – No. 2s – but very often these were the same kinds of venues as No. 4s. The clientele was largely the same.

Because it was the dominant type of pub, there is a kind of nostalgia associated with it today. It became known as the typical Czech pub: not too clean, full of cigarette smoke, where one beer after another was consumed.

We mentioned that all kinds of people went to these pubs and some of them of course were popular with the Czech intellectual underground, often heavy drinkers themselves...

That is absolutely the case. They were all No. 4s but they differed based on what was being discussed: so more underground locales you would have different discussions than pubs in some villages – and I don't mean this pejoratively – where workers from the local JZD farming cooperative would gather to have a beer or two but stayed until closing.

As a teenager I travelled through communist Czechoslovakia and was surprised to see that there were pubs that had their own identity. One I saw somewhere near Karlštejn had murals with scenes from the Wild West and other American icons. Cowboys and buffalo. And it struck me that many of these venues had their own identities despite a general uniformity from above. Has the history of unusual pubs from those days or later been mapped?

At one time or another I have come across books, articles, student papers or bachelor's theses mapping such sites and it is fascinating, more the territory of cultural anthropology. These pubs show that even if all pubs were rated one number, they retained specific identities often based on local traditions. You had so-called tramping community pubs, firefighter pubs, football or other amateur sport team pubs where you would see dozens of trophies on display behind the counter. Fisherman or hunters' pubs.

It's true that it seems strange when you have a group of people at a table and they only exchange a few words the whole night. Meanwhile two are online and communicating with people somewhere else, and two others at the table might be secretly communicating with each other using different platforms! It is strange that they even come to pubs at all.

Establishments were rooted in their own local history, even across a city like Prague. Such histories are valuable because they help us understand what the Czech pub was and certainly they were not all the same. They weren't all dives.

The quality of the beer under communism was also very different, when it came to smaller breweries around the country, right?

Yes, most certainly. New technology, new approaches and certainly much stiffer competition mean that the quality of beer itself is much, much higher today than it was in the past. I was too young to drink beer under socialism but from what I learned there were all kinds of factors when it came to smaller brewers – poorer ingredients available for example – which meant that some breweries around the country made really poor beer. And they got a reputation which was hard to shake. Today the difference in quality is night and day.

What would you say was the biggest takeaway or trend over the years?

The disappearance of the social aspect. It is also connected to the beer. Nowadays more and more beer is sold in bottles and cans and people stopped going to the pub as often. They also have many more opportunities than before and so the pub itself changed and is no longer needed for regular social contact. People don't feel the need to go there to talk to their friends, or even strangers, as much. That has changed the pub's character.

It also seems that more and more people are spending time "elsewhere": they might be there physically but their phones and social apps mean they are simultaneously in an entirely different space online...

This is an aspect we haven't looked at in the survey but it is a fascinating one. It's not only the pub that is affected but even something like family life... There is a continuing debate about whether connections online weaken or strengthen social ties.

It's true that it seems strange when you have a group of people at a table and they only exchange a few words the whole night. Meanwhile two are online and communicating with people somewhere else, and two others at the table might be secretly communicating with each other using different platforms! It is strange that they even come to pubs at all.

But groups of students in the hall or café at university are also doing the same. So it is a form of communication they are used to, that they need, yet they still have a need of course to meet in person and communicate face-to-face. Even if you talk for only half the evening, it's still better than nothing, I think.

I stopped asking about politics after 2004 in the survey because it became very clear the one thing no one in the pub wanted to talk about anymore was politics.

Pubs also used to be a place where politics were often discussed...

I stopped asking about politics after 2004 in the survey because it became very clear the one thing no one in the pub wanted to talk about anymore was politics. People who go to the pub now want to leave politics alone. They talk about other things: personal relationships, familial problems, jobs, and of course sports.

There are varying socio-economic factors I suppose but how do you classify the unfortunate Czech villages that don't have a single pub? That's rather sad, isn't it?

Sure some villages suffer that fate. Factors include a poor mix of local and holiday inhabitants where a critical line is crossed and it just isn't financially viable to keep the pub open anymore. Thinking about why a village is missing a pub can lead to a kind of micro-level analysis about individuals who make a difference or are socially innovative.

In the case of a small village, the situation can look dire but often all it takes is the effort of one individual who wants to make a difference. A single person who doesn't need to run a pub for a living, for example, but thinks there should be one there.

One person who doesn't care if only one other guy is sitting there all evening but still gets a kick out of it. There can be multiple impulses, a firefighter wants to revive a former meeting place and goes for it.

Villages that slip under the point of no economic return lose their pub and that is sad but one individual can come along and turn things around. The only question is: how long will the village have to wait? All it needs is for the right person to turn up.



PhDr. Jiří Vinopal, Ph.D., has worked as a senior researcher – methodologist at the Public Opinion Research Centre at the Institute of Sociology of the Czech Academy of Sciences since 2001 and since 2013 has been the head of the Department of Sociology at the Faculty of Arts at Charles University. He is a member of a number of professional organisations including the European Social Research Association and is vice-chairman of the Czech Sociological Society.

Radek Pileček: A high IQ isn't a hindrance!

He is a student at the Faculty of Science's Department of Geography and is off the charts when it comes to his IQ: 160+. First tested by Mensa CR at the age of 15, Radek Pileček is not only brilliant but also funny. He says in his field that having a high IQ has not really hurt but mostly helped.

STORY BY **Marcela Uhlíková** PHOTO BY **Vladimír Šigut**

So what is it like?

It's fine. I don't think I have any problems fitting in. I understand people and I don't think my IQ sets me apart. Of course, I spend a lot of time at the university. The IQ... well sometimes I wonder when I see the election results! I question how people can vote for some of the choices out there and it makes me think I really do live apart in a social bubble. At the same time, I wouldn't want to live in any other country. I was a member of our local commission, counting votes, so I saw up close that the results were legitimate and that the majority of Czech voters opted for what we have now. Whoever is unhappy with the results can take part in protests.

Did you follow the European elections?

I didn't really have a chance to see a lot of the debates and I have to admit I was more interested in the Ice Hockey World Championship! Of course I analysed many of the polls. I am a member of the voting commission at home in Bernartice and I enjoy doing that a lot. I enjoy talking to fellow commission members as well as voters, after. Voter

turnout for elections to the EU Parliament is of course never great, so during the two days I also had an opportunity to study.

What did you think of the results?

I was surprised that the two main factions in parliament lost so many voters – I didn't expect such a big shift. What was expected were further gains by populist parties. At the same time, the liberal democratic alliance did positively. I saw the Czech results as positive overall and I think there is potential in the future.

But a lot of voters unfortunately go for quick fixes and immediate benefits: the minimum wage rise or pension increases but are less interested in the state's overall economic prosperity which of course has an impact on the quality of life and standard of living. People want to be a tiny bit better off right away rather than a lot of better off in 15 years.

Have you ever thought you might get into politics yourself?

I can't rule it out completely. But I would want to enter politics from the

ground up. Getting elected in municipal elections and then in regional ones. After that, I'd see. But because of my studies I don't have time for politics now and of course I spend most of my time in Prague.

I would also be interested in teaching Election Geography at our faculty – it is a fascinating scientific field that is missing. I would like to pass on theoretical and methodological know-how as well as to work with students to analyse actual voting results in the Czech Republic from a geographical perspective.

Are there any new trends in your field that you find exciting?

Something known as the neighbourhood effect – the impact your neighbour has

Ok, sure, my handyman skills are a catastrophe, I certainly don't have perfect pitch, and I am not a very good cook. But if I really want to learn how to do something, I can.

on how people vote – has been very interesting. Your neighbour can influence your decision of who you vote for far more than party ideology and fewer and fewer people are reading party pledges or manifestos nowadays.

It is becoming apparent that candidates get more support in their district and neighbourhood which then transfers to the overall movement or party. What I study is how much this is a factor in party preference across different municipalities in the Czech Republic and I look at which candidates are most able to mobilize their voting neighbours, so to speak.

I think that the information compiled can be useful for political parties, basically I am already doing that for some of them now.

To come back to your IQ – is it ever a negative?

I wouldn't say so but it's true that a lot of people think that if you have a high IQ you are either all thumbs or have miserable social skills. Maybe there is a certain connection. But there definitely isn't any connection proving that people with high IQs are incapable of having a normal life. Ok, sure, my handyman skills are a catastrophe, I certainly don't have perfect pitch, and I am not a very good cook. But if I really want to learn how to do something, I can. That's true even of cooking: when my girlfriend was studying for her exams, I took care of her and cooked, too.

What was the most recent meal you made?

Spaghetti Bolognese. Well ok, I admit it was a premade sauce so I only warmed it up and forgot to add salt, but otherwise she liked it well enough. I can improve. But it's true that nobody at home ever asked me to do much with my hands and I guess my strengths lie elsewhere.

What got you interested in geography? As a boy did you have maps on your bedsheets?

No. But I did love maps: whenever I was sick and cared for by my grandma we drew maps all day as well as the flags of different countries. I think she must have suffered a bit: I was always testing her knowledge of capital cities or of Czech rivers from longest to shortest. So yes, my obsession goes back to my

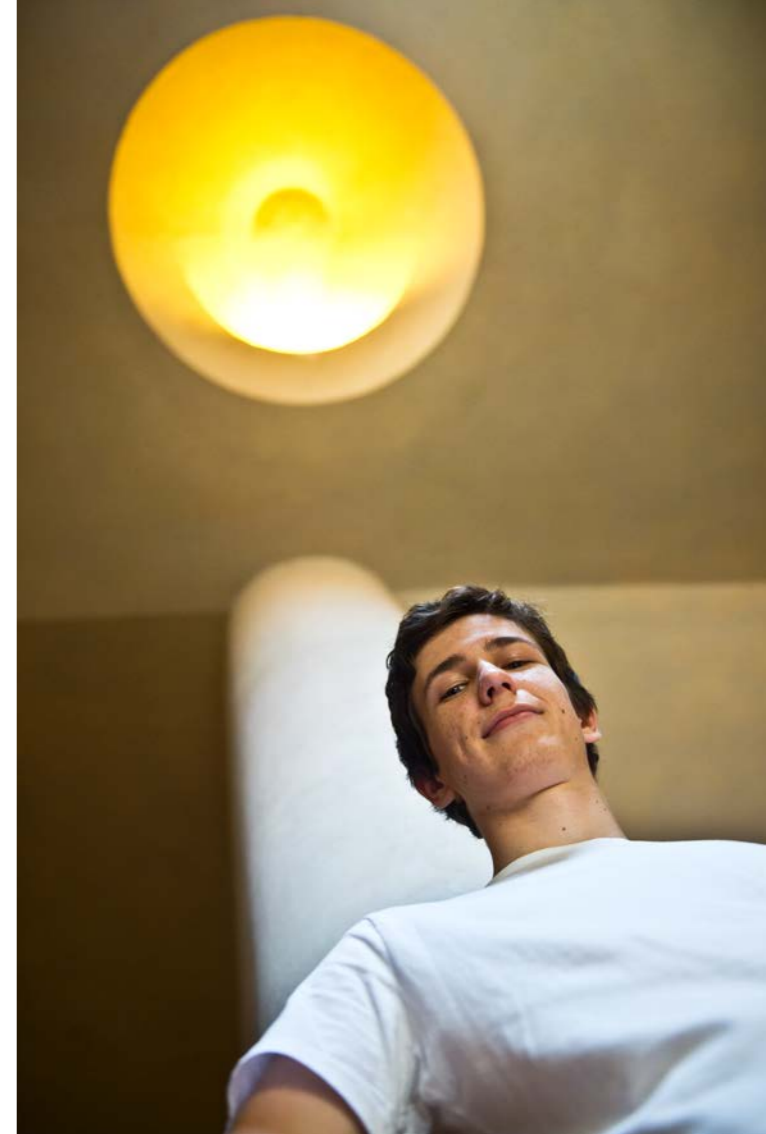
childhood and was apparent early on. It also helped that my mum worked at the Cadastral Office.

She took her work home with her?

No, but sometimes I would wait in her office and the walls were covered in maps. They were everywhere. I drew my first map at the age of seven, for my father who was heading to Turkey to work there for half a year. The map was of all of the states he would be travelling through and I admit geography was my passion and I found meaning in my studies.

What do you do when you want to relax? Do you do sports?

The last two years I have really gotten into golf. I have a handicap of 37 but I only started taking part in tournaments last year so I hope it will improve.



Radek Pileček comes from the small town of Bernartice in the district of Písek in the region of South Bohemia. After completing his Bachelor's, he opted to continue studying geography and to go for his Master's at the Faculty of Science at Charles University. In his Bachelor's thesis, he pinpointed mistakes made in the ballot counting process. As a political geographer, he is most in his element during election cycles.

The World According to LARP



Often at the weekend at Prague's Letná Park, you can see fighters dressed in futuristic armour gathering like scavengers from Mad Max: Fury Road. This is one kind of live action role play (or LARP). David František Wagner, a PhD student at CU, knows a thing or two about what is an increasingly popular hobby and occasional art form. He alone has authored more than two dozen larps inspired by history and politics.

STORY BY Jan Velinger PHOTOS BY Petr Luba, David František Wagner's archive

How far has the hobby come?

There was a tradition of re-enactment of scenic or historical fencing here which was fairly popular but that evolved into wholly different areas: you would have stunt actors or fencers or even fencing masters trying to re-enact martial arts in the 1990s and you still do today.

Once larping caught on here, what happened? Did it follow world trends?

The state of the hobby in the Czech Republic is quite specific. Ten years ago we were quite behind and we copied a lot from Nordic countries. Today I think things have changed and I think the trend has even reversed: we are producing larps that are different and going in different directions, and now we are attracting people from abroad. The world of larping is now a lot more diverse, so it is no longer a question of one area setting trends. But I like to think we have added our own facet to the hobby and have moved things in a good direction.

There is a strong intellectual foundation to some of these larps, especially those that tackle more historical or political storylines. For somebody who is a complete newcomer, what does the hobby boil down to?

If I should use a definition, it is first and foremost a game where you play a role in a set time and space. This is unlike other reality games such as Pokémon Go which you can continue anytime you pull out your phone. The time limit here is set in advance and can be from two hours to one month. Similarly, the location can be a room such as the one we are in, or the whole city.

And of course you have a role. The roles can be as simple as a soldier if we are talking about a battle larp to much more complex roles where you get 15 pages of your character's memoirs or you get a set of Director's Notes. You are going to steer your character in a certain direction, to add your own ideas and interpretation of who that person is, and it is up to you how the game plays out. One of the most basic principles of larp is making choices. You take decisions and the story is changed by the decisions you take.

To what degree should we differentiate between genre and setting? Are they separate?

They usually can be although there are some larps where genre and setting are mostly the same. Post-Apocalyptic Battle Royales will always take Post-Apoc as their setting and they are their own thing. Basically, you have sci-fi, fantasy and modern battles and then you have historical or present-day content games with a lot of plotlines and these can also be played within numerous different genres – from mysteries to romances and comedies and so on.

The roles can be as simple as a soldier if we are talking about a battle larp to much more complex roles where you get 15 pages of your character's memoirs or a set of Director's Notes.

One of the big differences between something like immersive video games is here you have contact with other people. I imagine that things also never play out quite the same way?

Sure. We have run a larp called Legion twenty-three times and every single time it was different. You have something like 54 characters with different plotlines and all kinds of choices and lots of room for players' interpretations. That means you have a different outcome each time.

When you run these larps are you there in a moderating role, are you overseeing the game?

It depends on the game and the particular role you have within the organisational team. During every larp, you have members of a production team who are in the background: someone responsible for accommodation, for food and so on. Still others are on-hand to take the part of short non-player character roles – characters who the players encounter randomly (this can be for example, a three-hour stint within a game that unfolds over two days), and those people are in the game obviously.

Still others can have roles at a kind of intersect in and outside the game: workshops before the larp begins and others overseeing the whole project and that everything is running smoothly. You have all kinds of involvement at various levels.

We'll talk about a larp you ran just recently called The End of History? but allow me one more question about the participants: who are they?

We get people from all over, including students, I am one myself, completing my dissertation at Charles University's Faculty of Education. The audience is very broad and the last few years there has been no basic age spectrum. We have students, professors, lecturers and many others anywhere from the age of 18 to around 68 or so. I think 69 was the age of the oldest person to take part so far.

The End of History? is named after a famous essay and later a book published in the 1990s by Francis Fukuyama when we were coming out of the Cold War and there was a great degree of optimism. Did you write that larp alone?



Actually, most larps are a collective effort because you have to include many points of view; the implementation of this particular larp took a year to put together. It began as a Master's thesis as kind of an experiment more than 10 years ago and so we thought why not try and make it into a game with rules and everything, not just for students of international affairs but for anyone. And it had nine or ten runs.

Based on what we learned, we then introduced improvements including new rules and new content. Based on information we compiled from the previous experience, we were now able to go into much more detail. We built on the experience of five years ago and this time around were able to allow players much more freedom. More details meant we could talk about more things. If the discussion focussed on Israeli settlements in the Golan Heights, the discourse could be much more nuanced because of the increase in information and better maps and so on.

We also know more now about the numbers represented by Hezbollah, for example, so we were able to put that into the game thanks to unique hindsight we had gained. So the game takes place in the time period of 2006 to 2014 and during some of the initial runs there was less clarity about

why some situations happened or came to a fore. Now we can go into much greater detail because we have a greater overview of what happened five years ago.

In this kind of larp, everybody gets a position to follow?

Yes and that is important. In *The End of History?* players represent certain factions with different measures of influence within a given state. So, for example, four people play delegates for Syria. They are not given personality traits or relationships like they might have elsewhere, such as “you are mercurial and melancholic”, “you are looking for romantic involvement” and so on. You would get that in a game like our *Legion*, where relationships are important.

Here, players represent a broader group, such as the Sunnis, and are given the task of representing their values and goals. The aim is to sustain your position or increase your influence in pursuit of your goals and so on.

Someone else might represent the leader of another delegation, for example, the Assad government. They get a starting position and certain values too. Then it comes down to whether the player makes compromises, for example, with the Kurds,

I wrote my first larp when I was 16. When I was 19 or 20 it became a really big part of my life and I haven't regretted it since.

or not. That decision, how far to negotiate, is up to the player alone.

And this echoes real-world situations where there is backroom dealing or are secret negotiations going on. So I suppose it allows players to feel a little what it might be like to be in that kind of situation?

The experience is focussed on the essentials. There are parts of such situations which are completely discarded or taken out: there is no formalism and of course the whole process is very simplified and time is condensed. In real time, the game takes two days which in game time represents eight years. One of the big takeaways for many participants is that things are far more complex than can first appear.

It is not that simple and a lot of the feedback afterwards is that players learned that negotiating is kind of hard. They often say they didn't expect it to be that difficult. The second thing they find, is that situations can be really complicated and there are NO easy solutions for a lot of stuff. If that would be the only take-away from the game I would still be really satisfied.

That brings me to the raison d'être for larping, how would you describe it? Is it entertainment? Is it art? Is it amateur theatre, preparation for real world situations, training for a future intelligence analyst?

I'd say larping is a medium that can be applied for any one of these uses. We certainly strive for all our larps to be entertainment but at the same time, especially with content-based games we, as the authors, would like to think that what we are doing approaches art. That is really what we are trying to do.

At the same time it can be used for training or for empathy, communication, negotiation and teamwork exercises. But I am sure there are other forms that are perhaps more useful – games without roles for example – that are better for team-building.

How did you yourself get into the pastime?

That's kind of a strange thing – I don't really remember now. When I was a teen I dabbled in pen-and-paper dice-based RPGS, I did historical fencing and I was interested in amateur theatre.

Then someone invited me to a larp and I enjoyed it. Consequently, I wrote my first larp two years later when I was 16. When I was 19 or 20 it became a really big part of my life and I haven't regretted it since.

I love stories and world-building but I appreciate that some people dislike games of any kind. Have you met with any negative reaction from anyone who came along and really disliked the experience?

For the last five years with our group, *rolling.cz*, and for 14 years through the hobby and making games, I have met thousands of players and sometimes there is negative feedback. But it is usually that they didn't like a particular larp, not that they don't like larps at all. By my estimate there is maybe five percent of people I met who just do not want to play larps – which is perfectly ok!

Quite often, though, it was more that a particular larp was not right for them. It can happen that there is a case of awkward motivation from the start and that's pretty bad: if someone is there only to please a partner, that's a mistake. If they don't want to be there in the first place, they will not enjoy the game – you can't just be a passive bystander.

But if it is something you want to try, it is inclusive and anyone can do it. We have people in their 60s making up stories, willing to march 20 kilometres in “frozen Siberia” and we have people who are 19 who work very well with everyone, there are people with disabilities who are able to take part just fine and it all works. Larping is an interactive medium and you have to put creative energy into it to enjoy it.



David František Wagner, born in 1988 in Písek, South Bohemia, is a PhD student at Charles University currently completing his dissertation at the Faculty of Education. The focus of his thesis are Christian churches in the former Czechoslovakia during the communist regime (1948–1989).

Wagner has been involved in live action role play since his teens and has written more than 30 larps to date.

Larping, he says, allows participants to experience something new and to see the world from a new perspective while still being FUN.



Reviving Sark Norman: A Language Spoken by Only **Four People** Worldwide

The Channel Islands are located in the English Channel and what is special about them is that most have retained their original Norman language. The island of Sark has one of the islands' four variations of the language, Sark Norman or Sarkese, which is still spoken by just four people. Martin Neudörfl, a Czech student from the town of Český Krumlov, has embarked on documenting this exotic language and revitalizing it. He even plans to teach the language in a local elementary school.

STORY BY Jitka Jiříčková PHOTOS BY Shutterstock, Martin Neudörfl's personal archive

Do you remember when you first heard about the island of Sark?

I was 16 and at the time I was studying at a middle school in England. My history teacher mentioned the Channel Islands and the language – which after the Norman conquest of England influenced the further development of English. Since even at that time I could speak English and French, I was attracted to the idea of studying Norman. I went to university with the aim of specialising in this but my Bachelor's Degree covered a different theme about spoken French. My thesis offered me the opportunity. I sent off an email to the Channel Islands administrations saying that I would like to

take part in the documentation and revitalisation of Norman. The first to reply the next day was the island of Sark, saying that they were very interested in my project (Editor's note: the other islands are Guernsey, Jersey, and Alderney). So, it was settled.

The island of Sark was in the biggest need for the language to be revitalised, having the fewest number of people speaking the original Norman out of all the islands...

That's apart from Alderney, where the fourth local version of Norman – Auregnais – died out in the second half of the 19th century. Out of the approximately 400 permanent residents of Sark, four ↪

native people now speak Sark Norman, plus myself. Besides these, there are many so-called “semi speakers”, or “half speakers”, who can understand and can grasp most of what’s being talked about. Then there are many people I met who can say at least a few words or phrases. Practically everyone, though, is able to swear in Norman.

What was involved in documenting Sark Norman?

Probably the most basic problem for me was coming to terms with the fact that I was a sort of referee who was deciding how a word should normally be pronounced. French today has a big influence on the language of the native speakers due to the period when the language was intensively propagated. But in the original Sark Norman the words sounded different. And so it fell to me whether I codified the pronunciation according to the latest variation or opted for the second possibility of how the word would sound if there was no French influence. I have not personally fully resolved the question for myself. Younger people, who can’t speak Sark Norman or just understand it, are more attracted to the old pronunciation. But the last speakers understandably want to retain the pronunciation they are used to. It has been necessary, given their engagement in my research, to respect their wishes. But in the future both possibilities must be taken into consideration.

Where did you yourself learn Norman?

I had the basics from specialist literature and eventually taught myself on the island during my consultations. If you have been taught languages and have a feeling for foreign languages and are attracted to the problems of spoken language, then it’s not too difficult. Looking back, it helped a lot that I had spent a lot of time on historical spoken French. French and Sark Norman belong to the same language branch, though Sark Norman has retained a lot more of what French has gradually lost over the last centuries – particularly with regards to pronunciation.

The people I consulted were willing to pass on part of the linguistic heritage primarily because they believed in trying to save their native language that was only spoken now by a handful of people.

Did you understand the people you consulted without any problems?

Yes. It was important to know how to work with people and to empathise with them. And the biggest help was being able to approach this foreign community through an intermediary who was respected by the local community. The people I talked to on Sark were elderly people. I spoke to them initially in 2016. At that time I did not have that much information and was pleased to get anything that they could give me. On the second occasion, in 2018, I had to go into more detail and discuss with them, for example, the conjugation and declension of words. They eventually told me everything I needed to know. But the process was very exhausting for them, given their advanced years.

What is life like on the island?

Originally, they were mostly fishermen and farmers. After the Second World War many new inhabitants came from England and there was a reorientation towards tourism, which is now the biggest mainstay. From a Central European perspective, they earn quite a lot of money. But the tourist season on Sark lasts only a few months and the cost of living is very high. The islanders have to survive for the whole year on the earnings from the summer tourist season and the period when they can catch lobsters. In such circumstances, they cannot save much at all. To go into details, my three-week stay there cost around 70,000 Czech crowns and I certainly was not a big spender. In this respect, I am very grateful to Charles University’s grant agency because without support I would not have been able to continue with my research.

Were the local people surprised when a Czech came along and spoke Sark Norman better than the majority of them?

I was very fortunate in the fact that everybody was very helpful towards me. However, in the beginning they were suspicious. They were not certain that the time they gave me would amount to anything, as was the case with previous research carried out. The people I consulted were willing to pass on part of the linguistic heritage primarily because they believed in trying to save their native language that was only spoken now by a handful of people.

And that’s the reason you decided to teach Sark Norman at a local elementary school?

Exactly. I’d like to prepare the structure of the lessons this year and then begin teaching the children by Skype. It’s likely to be a few hours a week. The goal is for Sark Norman to become the second language after English that’s taught, and for it then to become the gateway to French. A big plus is that not just the children but also their families and school managers are in favour.

One young girl was eventually able to put together four sentences on her own, one of which included “Can you pass me a piece of bread?” which she remembered from her grandfather because that was what he asked her as part of their daily routine.

During your second stay on the island you gave an hour-long lesson. How did the children react to you?

I was very nervous because I was aware that Sark Norman had last been heard in a school environment at the start of the 1970s. Back then, the children rehearsed a piece for the theatre in Sark Norman. I told myself that now I would be happy at the end of the hour if they could just say “Good Day”. But I was completely astounded by them because after a while they were able to perfectly pronounce and repeat everything that I said. One young girl was eventually able to put together four sentences on her own, one of which included “Can you pass me a piece of bread?” which she remembered from her grandfather because that was what he asked her as part of their daily routine.

Weren’t the adults sad that it took a Czech student to come and teach their children the language of their ancestors?

They were mainly disappointed that their parents had not taught them Sark Norman. At first, the last remaining speakers would not admit it but later when I spoke to them at length I started to understand what had happened. It was a classic situation that has occurred in similar circumstances elsewhere and is described in books: when the children started to go to school they were laughed at by the others because they did not know normal English and had a “bad accent”. After that experience they just spoke English to their children to spare them embarrassment. Fortunately, they still spoke Norman with the older inhabitants and their own age group so that the following generation at least heard it. These people are now in their 50s and 60s – the “half speakers”.

You have succeeded in the Norman language on Sark and as part of your Doctoral thesis you are working on Sark Norman grammar. What comes next?

Thanks to the university grant I am planning two additional research visits so that I will have sufficient data to publish a normative-grammar and from which modern exercise books and dictionaries

will be derived. Before that, of course, the codification of written Sark Norman should be completed, which is one of the biggest remaining tasks. I have uncovered one surprising connection between Sark Norman and my homeland. Every one of the Channel Islands has a nickname for its inhabitants. For Jersey, it’s the toads, for Guernsey the donkeys, and for Alderney the cows. For Sark it was originally the ravens – a reference to the birds that robbed grain from the cultivated fields. But after the war, the fields were fallow and populated by rabbits, which is the new nickname. I come from Český Krumlov and we also had our own nickname – it would be jackdaws in English – but that has disappeared now. And we also had our own original language – Šumava Bavarian. I know of three people who are able to speak it fluently. I would also like to document the language of my own ancestors that is disappearing practically in front of my nose. That’s unfinished business for me.



Martin Neudörfel was born in 1991 in Český Krumlov. Until the age of 18 he divided his time between Great Britain, France, and Japan. He studied French Philology at Charles University’s Faculty of Arts and is currently a postgraduate student at the Department of Romance Studies. His research has focused on the documentation and codification of Sark Norman and since the start of it he has been a member of the Sark education society, La Société Serquaise, and is now a joint manager of its language section. Besides language research, he also studies history including the regional history of Southern Šumava.

The Tramping Phenomenon

Nature, culture, alcohol and sex. These are things often associated with the tramping phenomenon during the First Czechoslovak Republic (1918–1938). “I was surprised by the intrinsic diversity and ambiguity of the tramping phenomenon”, historian Jan Randák admits.

STORY BY [Lucie Kettnerová](#) PHOTO BY [Luboš Wiśniewski](#)

Are you involved in tramping actively or just theoretically?

One of the co-authors, Jan Špringl, took me on trips down the Střela and Berounka rivers, for which I am grateful. We sat around a campfire and slept under the stars, but I did not really consider it tramping. And, to be completely honest, it never occurred to me that I would personally ever be involved in a project about the phenomenon.

Many Czech authors have already dealt with the history of tramping, Bob Hurikán being one example. How is your perspective different?

Tramping legend Bob Hurikán was an insider who drew on his own memories when he wrote and published a history of tramping during the era of the First Republic in 1940. In the 1960s, Rudan Noha dealt with not just tramping but also the woodcraft movement in his book *Odlesky táborových ohňů (Campfire Reflections)*. He was also linked with the community through his own recollections. At the beginning of the 1990s, a very exceptional and expert work *Český tramping 1918–1945 (Czech Tramping 1918–1945)* was written by Marek Waic and Jiří Kössl.

In contrast to these authors, our team had a certain distance time-wise and we are trained historians, though Jan Pohunek is an ethnologist. We therefore

have a grounding in research, experience in handling sources, and a critical approach to the subject. In comparison with the iconic Bob Hurikán, we posed different questions. In his book, he gave a short description of what tramping was and where it happened but he primarily concentrated on certain geographic locations and camping grounds. We also attempted to evaluate certain themes we regarded as crucial with regards to tramping and the First Republic such as the relationship between politics and tramping, tramping and cultural production, tramping and out of school education or tramping as mass recreation and as popular culture.

We looked at the tramping phenomenon as historians. That's not to say we did not respect the previous works. We did try to put some well engrained impressions and stereotypes through “the factual grinder” of archival research and

Unfortunately, in the first half of the 1920s, young people also started to seek out nature and escape the towns and some of them just created havoc in the wild. Older campers were keen to distance themselves.

demonstrated the ambiguity of this phenomenon.

When did tramping first start to appear here?

It's impossible to say exactly. Already several years before the First World War people were going on nature trips or camping. But no one described it as tramping. The term “tramping” as an activity started to appear in the everyday Czech press sometime around the middle of the 1920s. We, however, already came across the word “tramp” at the start of the 1920s in the sense of a care-free Czech camper. It's very likely that these people wanted to set themselves apart from the realities of the First Republic society, bourgeois morality, and spoiled urban civilisation. So tramping as such was a narrowly defined activity, an attempt to escape from or defy the First Republic. That was already apparent from 1918.

Didn't the label have a rather negative connotation at first?

That's a very interesting question. For the first campers on the Vltava and at the *Ztracená naděje (Lost Hope)* campsite, tramping was a positive phenomenon, although that was purely from their own perspective. Unfortunately, in the first half of the 1920s, young people also started to seek out nature and escape

the towns and some of them just created havoc in the wild. Older campers were keen to distance themselves. These “troublemakers” were at first labelled wild scouts but later on they also began to be described as trampers. So against their will and in spite of their efforts to protect their good name in the press, at the time the older trampers, including those from *Ztracená naděje*, began to see tramping defined as a problem for society which all of a sudden set off moral alarm bells. For critics, it was linked with the disruption of bourgeois values, which is an orderly and respectable life. In the media it began to be connected with everything these rowdies could do in the outdoors: poaching, damaging nature, drinking alcohol and having sex.

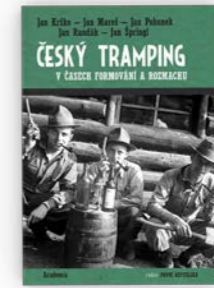
At the end of the 1920s and even more so at the start of the 1930s though, tramping began to be perceived as a respectable and acceptable mass affair. Undoubtedly, part of this stemmed from the fact that it was taken up by popular culture with tramping songs and it began to be associated with tourism and sport.

What social group was mainly involved? People also worked on Saturday, so those who were employed did not really have much chance to leave town.

Among the early trampers there were mainly young people from factories and shops and students who after a week of work wanted to get out into nature and either be on their own or alone with friends, to enjoy the community, strengthen relations, or simply relax, so that after a short weekend break they could start work or studies again. Age, rather than profession, probably best defined the first trampers.

So what did a nature trip look like in those days?

The opportunity to tramp began on Saturday afternoon and finished on Sunday. People had to be back in town on Monday, at work or at school. So the tramping itself was reduced to a few hours.



Czech Tramping during the First Republic.

In Czech, 244 pages
Published by Academia in 2019

The advantage was that it was financially within reach. Renting a campsite was in principle affordable and people could get there on foot, by train, on a bike, or later by car. They did not need special clothes or expensive equipment.

What was your most interesting discovery during your research?

The intrinsic diversity and ambiguity of the tramping phenomenon. I came to the research with a naive and stereotypical preconception that I knew a lot about tramping but there was a lot which came as a surprise, which we then explored.



PhDr. Jan Randák, Ph.D., works at the Institute of Czech History at the Faculty of Arts at Charles University. He is particularly active in the area of recollections, identification and loyalty in Central Europe and the creation of revolutionary traditions during the era of Czech Stalinism after 1948. He was the main organiser of the project *Tramping in the Czech Lands 1918–1989: Subculture and Interaction Between State and Society*.

This portrait was taken at Prague's Ethnographic Museum of the National Museum – home to an exhibition entitled A Century of Tramping.

Youths from **Children's Homes** Need Positive Male Role Models

He went from engineering to religious ministry before he found his calling in helping youths sorely lacking familial support. Today, Lukáš Talpa is a guarantor behind the Patron project, which helps kids growing up in children's homes.

STORY BY Kamila Kohoutová PHOTOS BY René Volfík

The Patron project is founded on the “Big Brother” principle, where an adult accompanies a teenager into adulthood. How did the project begin?

The League of Open Men organises developmental activities for men and many of them want to contribute to the community at large. They want to help, but don't necessarily only want to be sponsors. Some want to give freely of their time and pass on things that they know. When we look at today's children's homes there are a lot more women working there than men. Youths often establish important bonds with educators but relationships can be quite limited by changing work shifts and staff turnover. Youths in children's homes simply often lack contacts with regular guys who could be role models for them. That is what we want to change with the Patron project.

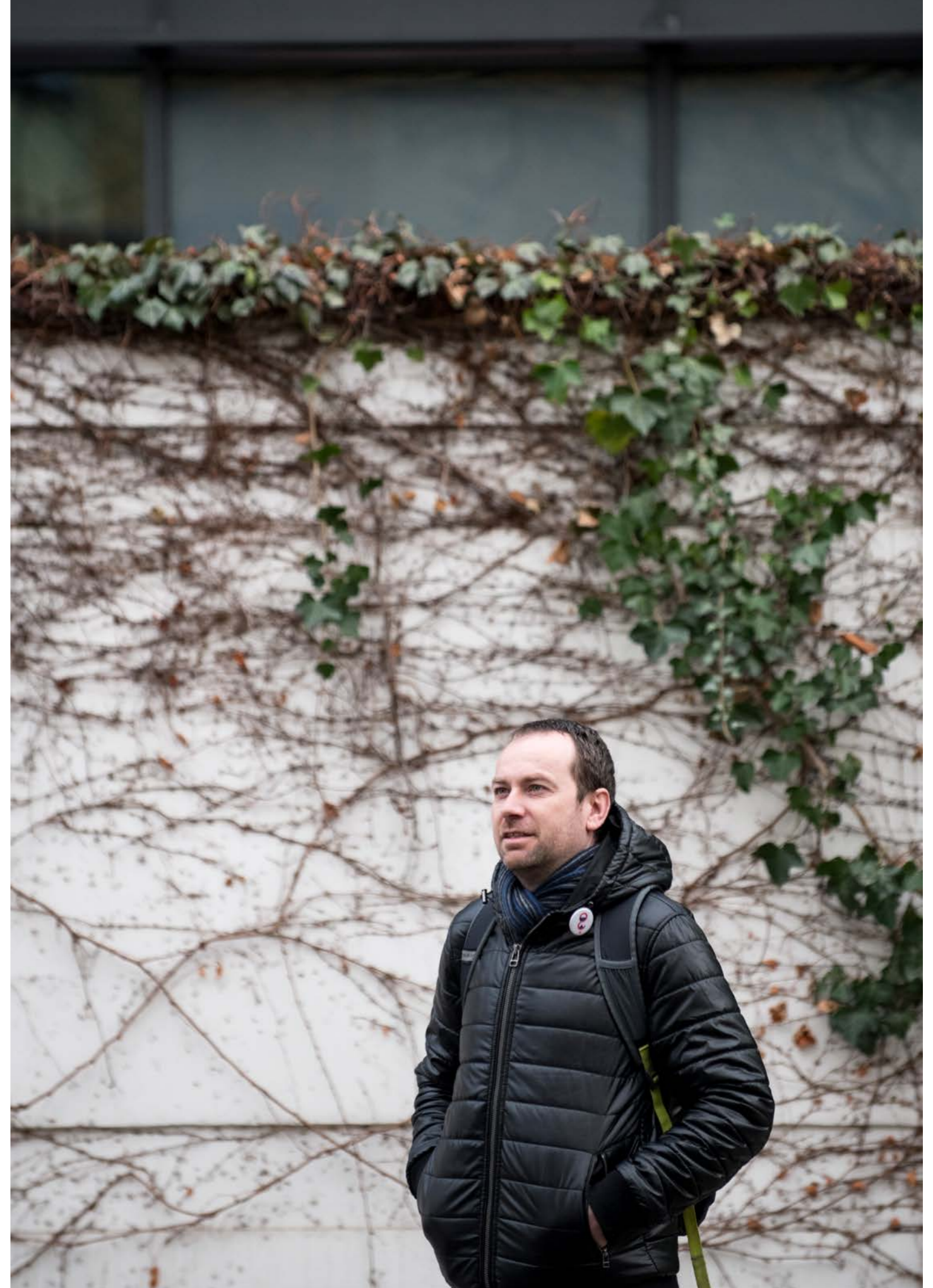
The project wants to provide regular role models that can have a positive influence?

Exactly. Most children in such homes don't know how to handle even common errands. For example, they don't know how to go to the post office to pay a bill. We often tell our patrons not to organise special programmes for children on a given day, as

they have plenty of those in the homes. A lot more useful is when a volunteer takes his charge along to the auto shop and shows him how to talk with the mechanic or brings him along to the country house where wood needs to be chopped.

When the time comes, how hard is for young people to leave the children's home and begin real life?

It's a real shock. In children's homes kids often live as if they were upper middle class. Children's homes are often located in converted stately buildings or First Republic villas. Every year, there are trips to the mountains or to the sea, and the homes are visited by celebrities. That is how we try and ease our consciences. I am often surprised by the good clothes many of the kids wear or the expensive mobile phones they have. I am not saying they should live in poverty in some sort of a hostel, but when many of them grow up and have to leave, their first experience is a cheap hostel with ordinary Formica furniture. They have trouble adjusting to the drop in standards. Some children's homes now refuse expensive gifts from sponsors or donors precisely so that children don't get used to a standard of living they will later be unable to ↩



maintain. If they want a certain mobile phone, then the kids have to learn to save up.

Is there any kind of transitory period before independence?

Not at the moment. A young person facing life on their own for the first time is eligible for a certain sum of money, for instance around 15,000 crowns. They have to make ends meet with just that: to pay the rent and to buy food and clothes as they look for a job. Due to the fact they are not used to being independent and are often not used to managing finances, they often fall into debt. Sometimes, when they get money from the state, they are preyed upon by others.

The state is not able to better prevent such problems?

The issue is shared by four ministries. In such circumstances it's impossible to have any kind of systematic solution. Together with other organisations, we are pushing for the matter to be brought together under the Ministry of Labour and Social Affairs. That would also improve the prospects for legislation to be passed on social housing. Such a bill should take into consideration children growing up in institutional care who will need a hand as young adults.

Patron Daniela

For more than three years now, Daniela Rejnušová has spent her free time with a girl from a children's home as one of the first female Patrons. We met her at the study area of the Faculty of Mathematics and Physics where she is responsible for doctoral studies. "It was a friend who made me aware of the Patron project. Originally it was focused exclusively on boys and young men but when it began to be opened up to women volunteers there was a great deal of interest. The organisers did not count on the fact that so many women would enrol and want to help", Daniela says.

The path from first contact with the organisation to first contact with a young person from a home however is not that simple. It mostly takes at least half a year during which the male or female patron must undergo training and must demonstrate a long-term and serious commitment to help and also moral irreproachability. When those who are interested become fully aware in the preparatory stage of everything that is involved in being a patron they often reconsider. But, as Daniela points out, that is preferable to later breaking the confidence of the person entrusted. "Young people from children's homes are used to the fact that there is a never-ending turnover of adults that they meet in their lives. Home employees change shifts, social workers change quickly and in their lives solid support is lacking in the form of a single person whom they can rely on. It is necessary for the patrons to diverge from these previous stereotypes",

How many people have you already helped?

Over the course of the project there have been around 100 young people but many of these are still at children's homes. It has been shown that it is best for them if they can stay in homes for as long as possible. If they study, they can remain until they are 26 and that's a big difference compared to someone who has to leave at the age of 18 or a bit later when they have so many things to sort out and get used to.

In all, around 25 young people have been able to set up on their own and only around three failed to get a foothold. Two we don't know about – they fell off the radar – the third ended up in prison. The rest have secure jobs and places to live, thanks for the most part to the help of their patron. In statistical terms, we have been very successful. It may be only a drop in the ocean, but for those young people it was a big help. The young man in prison at the moment also still has a patron, which increases his chances of integration once he is released.

Do patron relationships lead to lifelong friendships?

For some, yes. How long participation in the project lasts depends on mutual agreement. If the young person has been out of the children's home for at least three years and has a job

she explains. "We meet up at least once a month. We usually go for a coffee and a cake. Neither of us is very sporty so such collective types of activities are limited. Sometimes we can go to an exhibition. My charge is a big ice hockey fan and she supports the local team from her town. Several times we went together to see a match. For her it's a great occasion but for me not so much. My husband, who unlike me enjoys hockey, wanted to take this responsibility off my hands. But that was not possible, the relationship between the patron and charge is exclusive and cannot be transferred", Daniela explains. "Regular meetings are not always easy. Communication, which mostly takes place these days over social sites, is difficult", she says. "It's very difficult to come to terms with the life stories that some of the children tell you. It's hard sometimes to listen to what those in a children's home have been through. We have been well-prepared for that during courses, but some of these children's life stories are still extremely hard", she says.

Apart from regular meetings with the child charged to them, individual patrons must also attend supervisory sessions with other patrons and a psychologist. In an emergency, they can also phone the supervisor at any time. When asked if she would sign up as a patron again, Daniela says she certainly would. "But we still have a long way to go ahead of us", she admits.

and a stable life and both sides agree that further meetings would not serve any purpose and the goal has been attained, they can decide to stop. Others still meet up or keep in contact in some way.

Do other kids hear about these experiences and then also want their own patron?

Definitely. With time, patrons earn youths' trust. They are supportive and don't judge and provide support. The boys are soon conscious of this support and really appreciate it. They quickly agree between themselves that it's really worth it to have a patron. So it's often the case that when we persuade one young man that patronage makes sense, word gets out and is passed on and other patrons have it a lot easier.

Do you have enough people interested in being patrons?

The demand for them at the moment is a lot higher than we can meet. The issue is most critical in border regions. In Prague and Brno there are enough patrons but in the Ústí region, for example, we don't have a single one even though there are 17 children's homes there. Around 40 people each year there attempt to set out on their own.

In Prague, we have more patrons than are needed and for that reason some travel as far as Písek or Tábor in South Bohemia. If it does not bother them and they are able to, they can spend around three hours on the road on a trip there and back. That's okay. But, in principle, we try to make long journeys unnecessary.

Are you a patron yourself?

I am not. I wanted to be at first but I changed my mind. I did not want my role as guarantor of the project to be blurred.

How were you introduced to the project in the first place?

I was first of all a manager of the active fatherhood project which encouraged fathers to take paternity leave. The Patron project at that stage had just begun and I helped out a bit. In the end I was attracted to it so much so that I stayed on, though I still help to promote active fatherhood.

Were you yourself on paternity leave?

Yes, but only three months and my daughter was already three years old. I was at home at the latter stage of my wife's maternity leave because she had had a good job offer. It was really just a taste of parental leave, but worth every minute.

You originally studied engineering but then ended up at the Protestant Theological Faculty. Did you have ambitions to become a pastor?

When I started studying theology, I had already been serving for some time as a pastor to a certain American evangelical community. I had found belief already when studying engineering and worked my way up from lay preacher to pastor. Afterwards I studied at various seminaries, in Geneva, Zurich, Budapest, and Berlin. But I still lacked a wider theological foundation so I came to the the faculty at CU to basically complete my training.

So why did you choose this eventual path in life? Did you lose your belief when studying theology?

I did not, but I burnt out when working as a pastor. Work in the church is incredibly demanding. As a pastor, I did not learn how to set clear limits and had a tendency to give myself over to everything. I was not able set out what results should stem from my calling – the number of sins renounced, number of prayers, or saved souls. The results were intangible. Over time, I realised I would have to stop so that I would not burn out completely. I had been a pastor for 11 years.



Bc. Lukáš Talpa studied for a Bachelor's Degree at the Czech Technical University in Prague and for a Bachelor's Degree at the Protestant Theological Faculty. For several years he served as a pastor at the Prague Christian Fellowship. In relation to the League of Open Men, he is the organiser and guarantor of the Patron project (www.ipatron.cz).

The Children's Clinic at Karlov



Address:
Ke Karlovu 2
Prague 2
121 09



The site of the Department of Pediatrics and Adolescent Medicine

Originally, it was a home for orphaned children, then it was a children's clinic where generations of exceptional pediatricians were trained and modern paediatrics was developed. A workplace with a unique capacity for diagnostics, especially of hereditary conditions and rare diseases where, thanks to cooperation between the clinic and chemists, scientists, bioinformaticians and students, more than 30 new and rare diseases have been defined at the clinical, biochemical and molecular biological levels. A rich history contrasting with today's appearance.

prof. Ing. Stanislav Kmocho, CSc.
Head of the Genomics and Bioinformatics Laboratory



Joachim Gauck was awarded the Charles IV Prize



21/1

Madeleine Albright presented her newest book at the Faculty of Law

11/3



Life at CU



In January, the former president of the Federal Republic of Germany, Joachim Gauck, was awarded the international Charles IV Prize at Charles University. He is the seventh major public figure to have received the honour. Previous recipients included personalities in the fields of philosophy, music and medicine. Rector Tomáš Zima stressed that Joachim Gauck's contribution to economic ties and co-operation between the Czech Republic and Germany had been "nothing less than exceptional".

The former US Secretary of State Madeleine Albright was an honoured guest and speaker at the Faculty of Law in March. Albright, who held the post of Secretary of State from 1997 to 2001, was on hand to present her newest book, Fascism: A Warning.





The university gift shop reopened



2/4



Charles University's gift shop officially reopened for business at Celetná 14 in April. The shop, which had been all heavy furniture and dim lighting before, underwent something of a rebirth: historic architectural motifs got a new lease on life while new cabinet displays now highlight gift items – from pens and t-shirts to gift wines and a stylish university watch.



Rector's Sports Day



14/5

More than 1,400 students and staff took part in the Rector's Sports Day that featured some 40 different sports and disciplines. Competitors on the day gathered at 20 different venues in Prague and Hradec Králové. Among the different sports were beach volleyball, hockey, athletics, and golf; there was even a summer variant of biathlon in which runners (sans country skis) used laser rifles. This year, the event was organised by the university's Faculty of Science.



16/5



May saw the return of the Via Carolina innovations fair that was held at the multifunctional premises of the Dlabáčov movie theatre in Prague 6. The aim of the fair was to present new scientific projects and research by Charles University teams, and to show their potential for application in both the commercial and public sectors.

A day ahead of the fair, Charles University also hosted the 7th National Conference on Knowledge and Technology Transfer focusing on how to connect academia and research with the private sector. During the conference, emphasis was put on how less traditional areas such as the Humanities were now benefitting from knowledge transfer.



The Via Carolina innovations fair



Myanmar's Aung San Suu Kyi visited the Czech Republic in June, meeting with the prime minister and other officials before being hosted by Charles University. Myanmar's 1st State Counsellor, who received the Nobel Peace Prize in 1991, spoke in a packed Patriotic Hall, where she discussed her country's often difficult transition to democracy – a process in its fourth decade.

Nobel Prize winner Aung San Suu Kyi spoke at the Carolinum



3/6

Continuing debate series took aim at the problem of drought



4/6

June saw the continuation of a series of public debates organised by Charles University entitled Česko a jak dál? (The Czech Republic – Future Directions?). The fifth inception focussed on the problem of drought and was held in the town of Jihlava in the Czech-Moravian highlands. Different aspects in the "Fight Against Drought" were examined, among them the impact on the environment, the economy and everyday life.

The series, which features different panels of guest speakers and is hosted by Charles University Rector Tomáš Zima, resumed again in the autumn with the start of the new academic year.

Top students awarded Rector's Prize in Patriotic Hall

TEXT BY **Forum Magazine** PHOTO BY **René Volfík**



A special ceremony was held in the Patriotic Hall at Charles University on April 8, 2019 recognising the school's very best students and graduates. Eight graduates received the prestigious Rector's Prize from Rector Tomáš Zima himself. Also awarded on the day was the Bolzano Prize, recognising excellence in scientific research. Rector Zima applauded the students as well as academics and researchers saying they had "contributed to the good name of Charles University both at home and abroad".

King Wenceslas IV Between Two Ages

The exhibition commemorates the reign of Czech King Wenceslas IV on the 600th anniversary of his death. The monarch was particularly influential as a patron of the arts and holds a special place in the history of Charles University itself, as visitors will learn.



From Sept. 19 – Nov. 16 2019
Open daily from 10am to 6pm
At the Carolinum
Admittance is free



