



ABSTRACT BOOK

Czech-Israeli interdisciplinary conference

Interdisciplinary student conference
on Czech-Israeli relations
8 – 9 November 2021

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Welcome message

It gives us pleasure to host the 1st Czech-Israeli interdisciplinary conference on the topic of Czech-Israeli relations. This conference was held on November 8-9 2021 at the Faculty of Arts, University of West Bohemia in Plzeň, the Czech Republic. The conference aims was to bring together Czech and Israeli students and scholars from diverse academic fields, ranging from social sciences and humanities, through legal scholarship to natural sciences and new technologies. The title “Czech-Israeli relations” in this case does not mean just the past and present political relations between the two nations, but is including joint Czech-Israeli research, cultural and educational projects and events, be it the finished examples of good practice, projects in progress or currently planned and brand-new ideas and initiatives. The event was organized by students and students’ participation and presentations are especially welcome. Due to the continuing travel restrictions related to the Covid-19 pandemic, the conference was organized in the hybrid format, with the physical participation and with on-line participations on ZOOM platform.

Conference organizers: Jana Caisová, Atilla Vatansever, Ladislav Šmejda and Zbyněk Tarant
Faculty of Arts, University of West Bohemia



Conference program

Interdisciplinary student conference on Czech-Israeli relations

8 – 9 November 2021

08/11/2021

Venue: Univerzitní st. 2762/22, room UV115B

9:20 – 9:40

Annie Cleetus, Hanan Teller, Alex Schechter

CuCr catalysts for ammonia electro-oxidation: A study on activity and selectivity

9:50 – 10:10

Asmita Dutta

Laser carbonization of Carbon composite for flexible electronics

10:20 – 10:40

Eli Askhenazi

The influence of Professor Alois Musil and his activities on subsequent academic research in the Negev desert in South Israel

12:30 – 12:50

Alena Lochmannová

Medical clowning and the importance of humour in a sample of the senior population

13:00 – 13:20

Tereza Piskláková, Viktorie Sýkorová, Kateřina Svobodová

Mysterious Bond

13:30 – 13:50

Jan Van Woensel

Butterflies Don't Live in the Ghetto

09. 11. 2021

Venue: Sedláčkova st. 15, room SP319

9:00 – 9:20

Zbyněk Tarant

The Czech Jeremiah? Inscenation of the Karel Čapek's White Plague in Tel Aviv in the Shadow of the 1938 Munich Crisis

9:30 – 9:50

Haggai Frank

The military aid, weapons, aircraft and ammunition sold by Czechoslovakia during the Israeli War of Independence

10:00 – 10:20

Jakub Hablovič, Vilém Knoll, Tomáš Pezl

"when Jewish blood flows...". The story of the Czechoslovak Brigade for Israel

10:30 – 10:50

Michal Novotný

Organization of Railway Transport of Czechoslovak Brigade 1948–1949 to Israel

11:00 – 11:20

Vojtěch Vrba

War of Independence arms and ammunitions contracts in the light of Czechoslovak Law

13:00 – 13:20

Martin Janovský

Study visit at Ariel University in Israel

13:30 – 13:50

Benjamin Yang

A Dialogue between Sedimentary Analysis and Stone Tools from Tel Burna

14:00 – 14:20

Samuel Clark

Mapping Uruk in the Age of Empires: Using Gazetteers and Network Analysis in Historical Geography

CuCr Catalysts for ammonia electro-oxidation: A study on activity and selectivity

Annie Cleetus, Hanan Teller, Alex Schechter

Ariel University, Israel

Abstract

Ammonia is considered as one of the most efficient hydrogen carrier, as it contains 17% of H₂ by weight. Being carbon free at the end use energy generation from ammonia (NH₃) has become a matter of interest in the past years. In the efficient conversion of ammonia to electricity in fuel cell technologies, such as portable power sources, a major challenge is the identification of a suitable catalyst that can selectively oxidize NH₃ to N₂ at low over potentials, and ambient pressure and temperature, at high rates. In this work, low cost bimetallic carbon supported CuCr catalysts which were found to be more active than elemental Cu and Cr were prepared by a simple sodium borohydride reduction method. The formation of alloy was confirmed through PXRD. AFM and HR-SEM was used for further characterization of the nano-particles. The CuCr activity was found to increase with Cu content, however it was higher than pure Cu, which reveals a synergistic effect between Cu and Cr in the oxidation of NH₃, due to electronic interactions between Cr and Cu [1].

Cyclic voltammetry on stable catalysts with 90% Cu in 0.1 M KOH and 0.1 M NH₃ revealed a peak current density of 22 mA/mgcm² at a scan rate of 20 mV/s compared with 0.04 mA/mgcm² for Cr and 6.9 mA/mgcm² for Cu under the same conditions (Fig 1.). PXRD measurements have revealed the presence of oxides and hydroxides of Cu and oxides of Cr along with the metallic phases on the electrode surface that contributes to the activity of the catalyst. Mass spectrometry measurements have identified N₂ as the major product of oxidation along with trace amounts of N₂O and N₂H₄. Subsequent LSV coupled with chronamperometry at 1.1 V (vs RHE) in 0.1 M KOH and 0.1 M NH₃ for 1hr has shown an increase in peak current density for the initial 3hrs followed by a decrease suggesting the saturation of the active sites in the first 3 hrs of oxidation. Dissolution of Cu and Cr (CrO₄²⁻) into the solution has also been identified through ICP and UV-Vis spectroscopy. 90% Cu catalyst of CuCr in similar conditions show higher peak

current density compared to commercial Pt catalyst (14.8 mA/mgcm²) thus corroborating the potential of CuCr based catalysts for ammonia oxidation in fuel cells in the future.

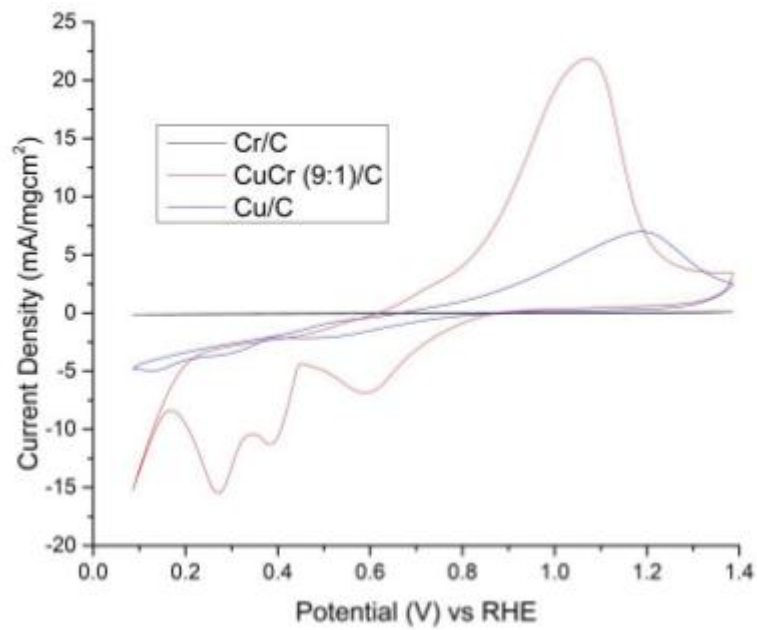


Figure 1: Variation of current density Vs potential of the catalysts in 0.1M KOH and 0.1M NH₃ solution at a scan rate of 20mV/s.

References:

[1] Xu, Cai, et al. "Synergistic effect between Cu–Cr bimetallic oxides supported on gC 3 N 4 for the selective oxidation of toluene to benzaldehyde." *Catalysis Science & Technology* 9.16 (2019): 4441-4445

Laser carbonization of Carbon composite for flexible electronics

Asmita Dutta, Arie Borenstein

Ariel University, Israel

Abstract

Carbonized materials have a widespread use as functional material in different fields of science, industry and even in agricultural. In fact, new fabrication method strongly supports the innovation of advanced products and their applications. The most remarkable features of carbonization of natural organic precursors are their tunable conductivities and capacitances which make them promising for electrodes, catalysts, separators etc. Traditional carbonization using pyrolysis and hydrothermal process bulk quantities of carbonized materials in large scale are produced while film based flexible electronic applications are difficult due to impractical process ability, tedious and expensive production and low yield. Laser-fabrication methods have been investigated as fast, energy-saving, low-cost, and precise material processing techniques in both science and industry recently and thus direct laser-induced materials synthesis has become an active field of research. As it allows for high-precision materials modifications with unprecedented accuracy, suggests the use for manufacturing several electronic and photonic products.

A major advantage of laser-synthesis is the possibility of the formation of fine pattern films due to tenability of laser wavelengths and energy input. In most cases, graphene is produced by laser-induced reduction of graphene oxide (GO). GO, a 2D nanomaterials with sp^2 hybridized thick sheet bears abundant oxygen-containing groups, such as hydroxyl and epoxy groups on the basal planes of GO and carboxyl groups at the edges of GO. Carbon nanotubes (CNTs) with one dimensional (1D) structure, possess excellent mechanical strength, extraordinary heat transfer capability and electrical conductivity. These properties make them promising materials for wide range of applications in nanotechnology. However, due to strong Van der Waals force applications in CNTs causes hydrophobicity and chemical inertness.

They usually entangle with each other, as a result difficult for dispersion which limits their commercial applications. To solve this technical problem, the CNTs are tailored with surface modifications using chemical reactions. Various acid treatments are introduced to modify the CNTs surface structure, mild oxidation with acids yielded higher concentrations of carbonyl

and hydroxyl functional groups while more aggressive oxidation form higher fractional concentration of carboxyl groups. These kind of approach are based on CH- π , hydrogen bonding or electrostatic interaction to adsorb functional groups on CNTs surface without any impairment of the original tube structure of CNTs. Thus, GO can be used with functionalized CNT to construct 3D GO/CNT hybrids through π -stacking interaction formed between the π -conjugated multiple aromatic regions of GO sheets and walls of CNTs. There may present another interaction in between the functional groups present in GO with oxygenated surface groups of modified CNTs. Due to this synergistic effect, this composite become an improved material for laser treatment. In this study, the electrochemistry of this hybrid structure is investigated as electrodes in bend form. R-GO/CNTs composite is initially characterize with FTIR and Raman spectroscopy and significant shifting in peaks with peak ratio from precursors indicates the presence of the composite further supported by XRD and XPS analysis. SEM and STEM were performed to investigate the dispersion and morphology of the composite. These hybrid material is useful as EDLC in terms of capacitance and improved stability make this composite a better material for the future applications.

The influence of Professor Alois Musil and his activities on subsequent academic research in the Negev desert in South Israel

Eli Askhenazi

Ariel University, Israel

Abstract

Alois Musil (30 June 1868 – 12 April 1944) who was born in Moravia, studied Roman Catholic theology at the University of Olomouc and received a doctorate in theology in 1895. He studied at the Dominican Biblical School in Jerusalem, as well as at the Jesuit University of St. Joseph in Beirut, in London, Cambridge, and Berlin. He traveled throughout the Middle East with the main focus on the deserts of that region until 1917.

Musil was also a researcher and lecturer. He was a professor of theology at the University of Olomouc, a professor of Biblical studies and Arabic at Vienna University and a professor at Charles University in Prague.

In 1901 he traveled through the Negev desert and later published a detailed map, written reports, and photographs that formed the base of knowledge and research for decades for specific areas in the Negev. The map of the Negev, which was drawn and published in 1907, included the distribution of riverbeds, Bedouin tribal areas, and an indication for the location of ancient ruins, including names and descriptions. The map was the basis for all maps of the Negev, up until the publication of the regional map of the Measurements Department of the British Mandate in 1924. The map of the Bsr region he drew is the first scientific map of that area. Another unique aspect of his work was the documentation of his findings by photographs that were of great research value.

Musil studied and described the Nabataean cities of the Negev and Jordan. He was the first to conduct a comprehensive survey of Mamshit (1901), identified the city's pattern, and mapped it. In the summer of 1902, he completed a detailed survey of the remains of Avdat, particularly of the caves on the western slope. He was the first to identify the military camp near the city and the bathhouse under the mountain. He surveyed and photographed the Roman-Byzantine city of Shivta in 1901 and was one of the first to identify gazelle hunting by desert kites type

traps. In this lecture, I will describe his research and contribution to the geographical and archeological research of the Negev desert, Israel, until these days.

Medical clowning and the importance of humour in a sample of the senior population

Alena Lochmanová

University of West Bohemia

Abstract

Based on action research in an independent community of seniors in Israel, a qualitative comparative study is being prepared by the Faculty of Health Studies of the University of ZČU to explore how the profession of health clown could be adapted to the elderly population, in collaboration with Ariel University. There is clinical evidence regarding the beneficial effects of laughter and humour on various body systems, including the immune system, cardiovascular system and endocrine system. The comparative research study will target groups of approximately 10 participants for 5 weeks (weekly sessions of 45 minutes). The main topic is humor from an occupational therapy perspective, with an emphasis on interesting relationships and phenomena associated with humor. The research traces the impact of humour on the group and observes the increased mental well-being of people affected by humour.

Mysterious Bonds

Renáta Fučíková, Tereza Piskláková, Viktorie Sýkorová, Kateřina Svobodová

University of West Bohemia

Abstract

Mysterious Bonds is the result of a co-operation between illustration students and diplomats on the occasion of the 30th anniversary of the resumption of diplomatic relations between the former Czechoslovakia and the State of Israel. The project describes the mysterious and deep bond that has existed for centuries between the Czech and Jewish nations, and maps the historical milestones that shaped their relationship. Drawings and graphic design are created by students of the Ladislav Sutnar Faculty of Design and Art of the University of West Bohemia in Pilsen under the supervision of artist and illustrator Renáta Fučíková. Themes and texts have been compiled by Hebraist and diplomat Robert Řehák. The project enjoys the support and encouragement of Ambassador Daniel Meron and the Embassy of the State of Israel.

Butterflies Don't Live in the Ghetto

Jan Van Woensel

University of West Bohemia

Abstract

Initiated and managed by curator Jan Van Woensel since 2019, Butterflies Don't Live in the Ghetto is the title of a long-term, research and artistic project that looks at key moments of the Second World War. The project establishes a bridge between history and art, and supports and contributes to historic sensitivity.

Each year, students of the Studio of Photography are introduced to a WW2-related subject or event via a lecture, conference and excursions to relevant sites. Via study they develop a concept for an artwork that contributes to the understanding of a historical event. Selection of the results are brought together in exhibitions in the Czech Republic, Slovakia and Israel, and in publication.

With Butterflies Don't Live in the Ghetto, Van Woensel established collaborations with Eduard Stehlík, director of Lidice Memorial; Robert Gerwarth, biographer of "Hitler's Hangman, The Life of Heydrich" and director of the Center for War Studies at University College Dublin; Amir Cohen, faculty member at Hadassah Academic College, Jerusalem; Doron Polak, gallery director, artist and curator, Tel Aviv; and, Bartłomiej Garba, Head of Exhibitions at the Museum of the Second World War, Gdansk.

In 2022, a side-project of Butterflies Don't Live in the Ghetto will take place in the form of a collaboration between Faculty of Design and Arts, Pilsen, and Hadassah Academic College, Jerusalem.

„The Czech Jeremiah? Inscenation of the Karel Čapek’s White Plague in Tel Aviv in the Shadow of the 1938 Munich Crisis“

Zbyněk Tarant

University of West Bohemia

Abstract

"Karel Čapek’s sci-fi allegory White Plague was meant to become the first inscenation by the famous Ha-Bima Tel-Aviv ansamble following a long tour abroad. While originally not intended, the long-prepared preparations have taken place under the shadow of the Sudetenland crisis and the play was first staged in Tel Aviv on September 28th, 1938 - one day before the infamous four-power conference in Munich. Symbolism of the pacifist allegory during the times of a looming war and the relation of Karel Čapek to the figure of Tomáš Garrique Masaryk, admired by the Zionist leaders and public opinion in the yishuv have pre-destined the play to become an instant hit of the season. Analogies between the play itself and the events unraveling in Czechoslovakia have inspired the Zionist press in the Yishuv to write about Čapek as if he was a Prophet Jeremiah, lamenting the destruction (churban) of the Temple. How exactly was the play received? What changes have been made to it and what do the responses of the contemporary press tell us about the attitudes of the Zionist Yishuv to Czechoslovakia and its ethos? The contribution is based in analysis of the contemporary Zionist press in Hebrew as well as archival materials from the Israeli Documentation Center for Performative Arts and it is a partial result of a research funded by the joint Czech-Israeli fellowship program Masaryk Distinguished Chair."

The military aid, weapons, aircraft and ammunition sold by Czechoslovakia during the Israeli War of Independence

Haggai Frank

Ariel University, Israel

Abstract

A fundamental question still asked about the circumstances that enabled the IDF to emerge victorious from Israel's War of Independence concerns the quantity of weapons possessed by the two sides in the conflict. Although the balance of arms at the war's outset was decisively in favor of the Arab states, the leadership of the newly established state of Israel managed to close this gap. This work highlights the key role played by Czechoslovakia, which had only then begun its transformation into a Soviet satellite state, as the chief arms supplier of the IDF during Israel's War of Independence. It considers the process by which the relationship was formed and the arms acquired, the key players involved, and the procured arms' decisive impact on the hostilities.

After the signing of a number of light arms purchase contracts, the Israeli delegation that was sent to Czechoslovakia advanced to the next stage - the establishment of the airlift from Czechoslovakia to Israel, known as Operation "Black", an Air Lift, which began in March 1948. By transport Messerschmitt-Avya aircraft planes divided each one of them into 2 parts, In addition, a large quantity of weapons was smuggled to Israel for infantry forces, mainly German machine guns (MG34) and medium-sized machine guns (Beza).

The first Messerschmitt-Avia planes, which arrived from Czechoslovakia, assisted in stopping the Egyptian army column at the "Ishdod" bridge preventing it to invade farther into the Jewish state and advanced northward. This was the first combat mission of the fighter planes by the Israeli Air Force.

"when Jewish blood flows...". The story of the Czechoslovak Brigade for Israel

Mgr. Jakub Hablovič, JUDr. Vilém Knoll, Ph.D., JUDr. Tomáš Pezl, Ph.D.

University of West Bohemia

Abstract

The paper will present the process, the highlights of preparation and building of a unique Czechoslovak volunteer unit in 1948 - 1949, whose aim was to help the emerging State of Israel in the War of Independence. In addition to the historical perspective, some legal issues related to the formation, recruitment and departure of its members abroad will be accented.

Volunteers and volunteer units involved in the establishment of Israel are still a somewhat neglected or under-emphasized topic in discussions on the establishment of Israel. The legal aspects of their formation, functioning, and legal implications for their members in their home states are not fully described, in contrast to their unquestionable military importance. Within this framework, then, the example of the Czechoslovak brigade is unique in many respects, not only because it is one completely neglected part of Czechoslovak assistance, but also because of its scale and the legal and organizational aspects on both the Czechoslovak and the Israeli side.

Organization of Railway Transport of Czechoslovak Brigade 1948–1949 to Israel

Mgr. Michal Novotný, Ph.D

University of West Bohemia

Abstract

The transport of the Czechoslovak brigade in 1948 and 1949 was a part of the Czechoslovakian support of the future State Israel. The Railway Transport was organized similarly as the programs to transport repatriates (millions of displaced people), who cruised across the Central Europe after the end of WWII (this disparate group consisted of ethnic Czechs, Slovaks, Poles, Jews and other nationalities). The special train units created for the needs of passenger transport repatriates were used for the departure of the Czechoslovak brigade in 1948 and 1949 too. These special transports of the strategic importance were approved at the level of the Prime Minister's Office. From the organizational point of view, the action was led by Ministry of Transport. Nevertheless, the actual organization of the volunteer's railway transport took place in 4 waves on a slightly different principle than the transports of repatriates and re-emigrants, organized by the Ministry of Labour Protection and Social Welfare. The transport of the military unit and specialists took place in parallel and partly as part of the emigration action the Czechoslovak citizens of the Jewish origin to Israel, prepared since December 1948, which provided for the departure of up to 20,000 people till 1949. The paper deals with aspects of management and organization of this action.

War of Independence arms and ammunitions contracts in the light of Czechoslovak Law

Mgr. Vojtěch Vrba

University of West Bohemia

Abstract

The contribution deals with issues of legality and illegality of arms and ammunitions contracts between Czechoslovak arms works and Jewish Agency (subsequently the State of Israel). It examines key contracts among other mostly archival sources and determines whether there were any legal issues according to Czechoslovak law.

At the centre of arguments stand various Acts and government regulations of both 1st and 3rd republic, as well as internal regulations of Zbrojovka Brno arms works state company. Although there may be questions left for the legality and illegality of these contracts according to international law, the author aims to argue, that there is none regarding the legality of such contracts according to presented Czechoslovak legal framework.

Study visit at Ariel University in Israel

Martin Janovský

Czech University of Life Sciences Prague

Abstract

In the following contribution, I will describe my experience at one of the universities in Israel. My study stay was preceded by participation in the Tel Burna Excavation Project, an ancient tell research project in the Shephelah region of Israel. Researchers from all over the world are involved in the research and the team I was part of was tasked with taking sediment samples and analysing them for a wide range of chemical elements. I followed up this research with a four-month study stay at Ariel University in 2019. During this stay, I analysed the research data and compiled it into an article that I was able to publish. In this paper we discuss the geochemical evidence for the biblical siege of the Tel Burna site and the sedimentation of dust particles from the deserts. My stay in Israel was not just about work and study, because I was able to see many places in Israel and meet interesting people.

A Dialogue between Sedimentary Analysis and Stone Tools from Tel Burna

Shih Hung (Benjamin) Yang ^a, Chris McKinny ^b, Itzhaq Shai ^a

^a *Ariel University, Israel*

^b *Gesher Media, Portland, Texas, United States*

Abstract

Stone tools continued to be used along with the development of human history since the Lower Paleolithic period. Today, archaeologists are gaining a better understanding of where and how those tools were manufactured and how they were involved in daily activities. Stone tools were connected with food preparation. Furthermore, it also gives us a glimpse of how ancient socio-economic works in the contexts of the household, public structures, and even within the city. The assemblage of stone tools was found in an enclosure in Area B1 at Tel Burna, Israel. This enclosure is dated to the 13th century BCE and the finds suggest that the enclosure was used for Canaanite ritual practice. Since 2015, scholars from Czech Republic and Israel have been cooperating together at the site and provided significant results. While more and more scholars are aware of the importance of stone tools, it shows the need for interdisciplinary research in order to provide multiple perspectives on understanding stone tools and the activity of food preparation. This paper aims to discuss the results between sedimentary analysis, which were done carried out by universities from the Czech Republic from 2015-2021, and functional analysis of stone tools at Ariel University, in order to understand how these two studies might provide greater insight into the purpose of the stone tools. Moreover, this comparative study will also help us understand how the actual daily activity that happened within ca. 30m x 2m enclosure, Area B1 at Tel Burna during 13th century BCE.

Mapping Uruk in the Age of Empires: Using Gazetteers and Network Analysis in Historical Geography

Samuel D. Clark

Ariel University, Israel

Abstract

The Mesopotamian Ancient Placenames Almanac (MAPA), one of the Digital Pasts Lab's flagship projects, is planned as a long-term examination of the historical geography of Mesopotamia in the Age of Empires, aiming to incorporate both textual and remote-sensing data for large scale relational mapping of the landscape. The core of the project is a gazetteer of place names assembled from 6th & 5th Century BCE Urukian texts and in line with World Historical Gazetteer protocols, and ground, aerial, and satellite surveys of the area.

In this presentation, I propose to first discuss the assembly of the gazetteer, both in general terms regarding the uses of gazetteers, and the specific challenges of assembling a gazetteer of Uruk based on ancient cuneiform sources. This includes both defining the bibliographic background, the various digital tools used to assemble, edit, and publish the gazetteer, and the international colloquia whose standards the gazetteer meets. The MAPA gazetteer can be found at MAPA's GitHub.¹

Following the discussion of gazetteers, I will discuss the use of network analysis in achieving MAPA's larger goals. A brief discussion of the concept of network analysis and a definition of graph databases will be followed by a more expansive discussion of the specific use case of MAPA, and how two specific digital tools (Gephi and Neo4J) are used on the gazetteer to derive various conclusions from the discovery of meaningful connections within the linked placenames.

¹ <https://github.com/DigitalPasts/MAPA>