



SLOVESNA PODELITEV DIPLOM,
MAGISTRSKIH DIPLOM
IN PROMOCIJA DOKTORJEV ZNANOSTI
UNIVERZE V NOVI GORICI

Dvorec Lanthieri, 18. februar 2016

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Študijski program prve stopnje Gospodarski inženiring

- **Violeta Georgieva**; *mentor: dr. Boris Gojkovič*,
Sodobno vodenje poslovnih knjig

Študijski program druge stopnje Gospodarski inženiring

- **Johannes Vuga Gregorič**; *mentor: prof. dr. Marko Bohanec*,
Sistem za pomoč pri izbiri oblike spletnega oglasnega sporočila za informiranje izbranih tipov uporabnikov
- **Martin Lozar**; *mentor: prof. dr. Andrej Filipič*,
Sistem za verzioniranje podatkov
- **David Rejc**; *mentor: prof. dr. Marko Bohanec*,
Primerjava metod večparametrskega odločanja pri izbiri tehnologije spajkanja

Fakulteta za znanosti o okolju

Študijski program prve stopnje Okolje

- **Lucija Vodir**; *mentorica: prof. dr. Metka Petrič*,
Vpliv hidroloških razmer na kakovost kraških vodnih virov – primer izvira Rižane
- **Tine Bizjak**; *mentor: doc. dr. Griša Močnik*,
Občutljivost modela za določanje virov aerosoliziranega črnega ogljika na izbrane vhodne parametre
- **Tamara Gajšt**; *mentor: doc. dr. Andrej Kržan*,
Analiza ostankov plastike v komercialnem kompostu

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Študijski program prve stopnje Kulturna zgodovina

- **Borut Rutar**; *mentor: prof. dr. Igor Grdina*,
Vojaško-politična zaveznitva evropskih držav in Primorci ob rapalski meji 1920 – 1941

Visoka šola za vinogradništvo in vinarstvo

Študijski program prve stopnje Vinogradništvo in vinarstvo

- **Daniela Markovic**; *mentorja: prof. dr. Paolo Sivilotti in doc. dr. Branka Mozetič Vodopivec*,
Effect of timing of leaf removal on yield parameters, grape and wine quality of *Vitis vinifera* L. cv. 'Sauvignon blanc'

Fakulteta za podiplomski študij

Magistrska diploma

Študijski program Ekonomika in tehnike konservatorstva arhitekturne in krajinske dediščine

- **Mario Ronga**; *mentor: prof. dr. Xavier Greffe*,
Assessing the European fortified Heritage. Feasibility study for the Vauban Fortifications of Briançon, World Heritage Site

Promocija doktorjev znanosti

Študijski program Molekularna genetika in biotehnologija (tretja stopnja)

- **Sofia Dashko**; mentorja: doc. dr. Lorena Butinar in prof. dr. Uroš Petrovič, Exploring biodiversity potential of wine associated yeasts

Človeštvo izkorišča fermentacije z uporabo kvasovk že od obdobja neolitika. Najbolj pomembna kvasovka je *Saccharomyces cerevisiae*, ki se uporablja za številne fermentacije z biotehnološkim pomenom, vključno s fermentacijo grozdnega mošta za proizvodnjo vina. Kljub pogosti uporabi te kvasovke so molekularni mehanizmi, ki kontrolirajo alkoholno fermentacijo, še precej nejasni in izbira kvasovke *S. cerevisiae* za inokulum je najpogosteje posledica navedenih in ne rezultata racionalnih analiz.

Sofia Dashko je v svoji doktorski disertaciji raziskovala vlogo različnih kvasovk v vinarskem procesu. Proučevala je, kako lahko določen sev, ki je uporabljen kot inokulum, vpliva na tvorbo arome vina. Obetavni rezultati, dobljeni pri fermentacijah z uporabo ne-konvencionalnih kvasovk, so jo spodbudili, da je raziskala raznovrstnost v naravi prisotnih izolatov v eni izmed slovenskih vinorodnih dežel. Tako je nastala zbirka z več kot 1200 sevi, katerim sta bila določena fenotip in genotip. Številni izolati, vključno s tistimi, ki ne spadajo v rod *Saccharomyces*, so pokazali obetavne enološke in biotehnološke lastnosti. Vzorčenje je pokazalo tudi ostro ločnico med ekološkima nišama vrst *S. cerevisiae* in *S. paradoxus*, ki je presenetljivo značilna za evropske vinograde: medtem ko so habitati vrste *S. cerevisiae* močno povezani s človeško dejavnostjo, je bila vrsta *S. paradoxus* v glavnem izolirana iz vzorcev iz gozdnega okolja.

Zadnji cilj disertacije Sofie Dashko je bil razširitev nabora molekularnih orodij za uravnavanje ravni genskega izražanja pri sevih, ki se uporabljajo v vinarstvu. V ta namen je vzpostavila mehanizem interferenčne RNA v kvasovki *S. uvarum* in dokazala njegovo funkcionalnost. Ta pristop se lahko uporablja tudi za uravnavanje esencialnih genov in ima tako potencial tako za temeljno raziskovalno kot tudi za industrijsko uporabo.

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Human exploitation of yeast fermentations dates back to the Neolithic. Saccharomyces cerevisiae has been the most important yeast used for numerous fermentations of biotechnological interest, including grape fermentation for wine production. Despite its abundant use, the molecular mechanisms controlling alcoholic fermentation are rather unclear and the choice of S. cerevisiae as an inoculum is often the consequence of a mere habit, rather than the result of rational analyses. Sofia Dashko focused her PhD thesis on the role of different yeasts in the winemaking process. She was investigating how specific strains used for inoculum could influence the wine aroma formation. Furthermore, the promising results which she obtained by using non-conventional yeasts for wine fermentations encouraged her to explore the diversity of a Slovenian wine region for natural yeast isolates. The resulting yeast collection contains more than 1,200 strains, which have been phenotyped and genotyped. Several isolates, including non-Saccharomyces species, showed promising oenological and biotechnological traits. Analysis of the sampling results revealed a sharp discrimination between the ecological niches of S. cerevisiae and S. paradoxus, which is a striking feature of European vineyards: while S. cerevisiae habitats are strongly associated with human activity, S. paradoxus was mainly isolated from forest environments.

The last objective of the thesis of Sofia Dashko was to expand the molecular toolbox for regulating gene expression levels in the strains applied in winemaking. She reconstructed the RNA interference mechanism in S. uvarum and proved its functionality. This approach can be used to regulate even essential genes and thus has both basic research and industrial applications potential.

- **Ana Rejec**; mentor: prof. dr. Janoš Butinar,

Diagnostic and prognostic markers in canine inflammatory and neoplastic head and neck conditions

Pri psih se v področju glave in vratu pojavljajo številne vnetne in tumorske bolezni. Znano je, da le-te vplivajo na kakovost življenja, saj so povezane z različnimi stopnjami tako področnih kot sistemskih sprememb in so lahko neposredni ali posredni vzrok smrti. Na žalost so mnogi psi tako z vnetnimi kot neoplastičnimi procesi v področju glave in vratu zdravljeni v napredovalih stadijih bolezni, in prav to dejstvo lahko pomembno vpliva tako na izbiro strategije kot izida zdravljenja.

Doktorska disertacija je razdeljena v štiri sklope in vključuje proučevanje di-

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agnostične in prognostične vrednosti parametrov in indeksov krvne slike pri psih z vnetnimi in tumorskimi obolenji glave in vratu, regulatornih T celic pri psih z različnimi stopnjami parodontalne bolezni in proliferacijskih in angiogenih biomarkerjev pri psih z vnetnimi in tumorskimi obolenji glave in vratu. Prav tako smo spremljali učinkovitost pospešenega kemoradioterapevtskega protokola za zdravljenje napredovalih oblik ploščatoceličnega karcinoma glave in vratu pri psih.

Dokazali smo, da imajo proučevani biomarkerji pomembno diagnostično in prognostično vrednost ter lahko znatno prispevajo k izboljšanju metod zdravljenja, tako vnetnih kot neoplastičnih procesov v področju glave in vratu pri psih, kakor tudi učinkovitost pospešenega kemoradioterapevtskega protokola za zdravljenje napredovalih oblik ploščatoceličnega karcinoma v področju glave in vratu pri psih.

Several different types of conditions with inflammatory and neoplastic background affect the anatomical localities of the head and neck in a dog. It is a well-recognized fact that these conditions affect the quality of life, as they are associated with various degree of regional dysfunction, have systemic effects and can be direct or indirect cause of death. Unfortunately, many dogs with both inflammatory and neoplastic head and neck conditions are presented at an advanced stage of the disease which can have significant impact on treatment strategies. The identification of biomarkers is advisable to enhance effective staging, grading and prognostication, which will in turn more accurately direct recommendations for therapy.

It was our interest to investigate the diagnostic and prognostic value of complete blood count parameters and indices in dogs with head and neck conditions of inflammatory and neoplastic origin, regulatory T cells in dogs with periodontal disease, proliferative and angiogenic biomarkers in dogs with inflammatory and neoplastic head and neck conditions and to evaluate the effectiveness of an accelerated radiotherapy protocol for the treatment of advanced canine head and neck squamous cell carcinoma.

We have proved that the parameters investigated might serve as important supportive diagnostic and/or prognostic biomarkers which might help to improve the treatment strategies of both inflammatory and neoplastic head and neck conditions in dogs and that the accelerated chemoradiotherapy protocol represents an effective alternative treatment option for dogs with advanced canine head and neck squamous cell carcinoma.

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- **Tanja Bele**; *mentorica: prof. dr. Elsa Fabbretti*,

Molecular mechanisms regulating ATP signaling in mouse sensory neurons

Tanja Bele je pomembno prispevala k razvoju raziskav in izobraževalne dejavnosti na Univerzi v Novi Gorici na področju molekularne genetike. Njene raziskave so povezane s študijem kroničnih mehanizmov bolečine. Usklajen odziv nevronov in celic glie na spremembe v koncentracijah zunajceličnih aktivnih topnih mediatorjev kot je ATP, so bistvenega pomena pri obvladovanju delovanja nevronov. V patoloških stanjih, v katerih je udeležen senzorični živčni sistem, so povišane zunajcelične koncentracije ATP eden izmed glavnih razlogov za pojav nevronske senzibilizacije. To dejstvo je Tanjo Bele vodilo k raziskavam mehanizmov sproščanja ATP v senzoričnih ganglijih. Ugotovila je, da povezava med P2X purinergičnimi receptorji, njihovimi efektorji in hemikanalim Panx1, uravnava inhibicijo sproščanja ATP v bazalnih pogojih. Ugotovila je tudi, da so isti faktorji vpleteni v sproščanje ATP, ki ga izzove aktivacija receptorja P2X3, kar kaže na to, da četudi so opazovani proteini izraženi v različnih celicah, je njihovo uravnavanje prilagojeno na podoben način in so verjetno del molekularnega sistema, ki zadržuje sproščanje ATP in natančno ureja zunajcelične ravni ATP s svojim zaznavanjem ter nadaljnjimi prilagoditvami ustreznih zunajceličnih koncentracij. Tanja Bele je pokazala, da P2X3 receptorji interagirajo s proteini Panx1 v senzoričnih nevronih in da molekularna povezava med proteini P2X3, CASK in Panx1, prispeva k dekodiranju kompleksnega signaliziranja preko purinergičnih receptorjev, vključenih v prenos bolečine, kar predstavlja nov in zanimiv mehanizem regulacije bolečine, ki bi lahko predstavljal tarčo za farmakološko intervencijo za lajšanje simptomov zaradi napak v delovanju senzoričnih nevronov.

Tanja Bele was active at UNG providing an important contribution for the development of the University research and educational activities in Lanthieri in Vipava. Her research was regarding the study of chronic pain mechanisms. Coordinated and harmonized neuronal and glial responses to variations in extracellular levels of active soluble mediators such as ATP are essential in controlling neuronal activity. In pathological conditions involving sensory nervous system, elevations in extracellular ATP levels are believed to be one of the main reason for neuronal sensitization and pain. This notion led us to explore mechanisms of ATP release in sensory ganglia and we found that association among P2X purinergic receptors, their downstream effectors and hemmichannel Panx1 regulates inhibition of ATP

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release in basal conditions and that same players are involved in P2X3 receptor evoked-ATP release which globally suggest that even if observed proteins are expressed in different cells, they could be modulated by similar mechanisms and are possibly part of an "ATP-keeper molecular system" that finely regulates extracellular levels of ATP by its sensing and further adjustments of peculiar extracellular concentrations. We showed that P2X3 receptors interact with Panx1 in sensory neurons and that molecular coupling between P2X3, CASK and Panx1 contributes to decoding of the complex purinergic signaling involved in nociception which represents a novel and interesting mechanism of pain regulation that could be precisely targeted in order to alleviate tedious disorders of sensory neurons.

Študijski program Kognitivne znanosti jezika (tretja stopnja)

- **Petra Mišmaš**; mentor: prof. dr. Franc Marušič,

On the optionality of wh-fronting in a multiple wh-fronting language

Disertacija raziskuje večkratna *k*-vprašanja v slovenščini. Začetna točka je opazka, da se na začetek *k*-vprašanja ne premaknejo nujno vse vprašalnice. To v nasprotju z obstoječo literaturo nakazuje, da večkratni *k*-premik v jezikih z večkratnim *k*-premikom ni nujno obvezen oziroma da lahko vsaj v nekaterih jezikih govorimo o neobveznem večkratnem *k*-premiku.

Opisani in analizirani so trije tipi večkratnih *k*-vprašanj v slovenščini: (i) vprašanja, v katerih se vse *k*-zveze premaknejo na začetek stavka (tj. vprašanja z večkratnim *k*-premikom), (ii) vprašanja, v katerih se vsaj ena *k*-zveza premakne na začetek stavka, medtem ko se ostale premaknejo na pozicijo znotraj stavka (tj. večkratna *k*-vprašanja s kratkim premikom), (iii) vprašanja, v katerih se vsaj ena *k*-zveza premakne na začetek stavka, medtem ko ostale *k*-zveze ostanejo na mestu (tj. večkratna *k*-vprašanja s *k*-zvezo na mestu). Pokazano je, da se mora v vseh tipih *k*-vprašanj vsaj ena *k*-zveza obvezno premakniti na prvo mesto v stavku, da so ta vprašanja lahko interpretirana kot 'prava' *k*-vprašanja, pri čemer obstoj različnih tipov vprašanj ni posledica omejitev premika, ki delujejo v drugih jezikih z večkratnim *k*-premikom.

Predlagana je analiza, po kateri je neobveznost premika v slovenščini posle-

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dica različnih *k*-zaimkov ter različnih mest, na katera se premik zgodi. S teoretičnega vidika to pomeni, da je neobveznost večkratnega *k*-premika zgolj navidezna in da je obstoj različnih tipov vprašanj posledica različnih leksikalnih elementov v slovenščini.

The thesis explores multiple wh-questions in Slovenian and the observation that not all wh-phrases have to front in these questions. This suggests, contrary to what was previously assumed, that multiple wh-movement is not always obligatory and that it can be optional in some multiple wh-fronting languages.

Three types of multiple wh-questions in Slovenian are described and analyzed: (i) questions in which all wh-phrases move to a clause-initial positions (i.e. questions with multiple wh-fronting), (ii) questions in which at least one wh-phrase has to be moved to a clause-initial position, while the rest undergo movements to some clause-internal position (multiple wh-questions with short movement), (iii) questions in which at least one wh-phrase has to be moved to a clause-initial position while the rest remain in situ (multiple wh-questions with wh-in-situ). Crucially, it is established that in all wh-questions at least one wh-phrase has to move to a clause-initial position for a question to receive a true question reading and that the existence of the three types of questions is not a result of restrictions on movement which regulate wh-movement in other multiple wh-fronting languages.

The described optionality of movement is derived from the existence of different wh-pronouns and different landing sites for wh-phrases in Slovenian. From a theoretical point, this means that optionality is only apparent and the existence of different types of questions a consequence of different lexical items.

Študijski program Fizika (tretja stopnja)

- **Saeede Nafoshe**; mentor: doc. dr. Martin O'Loughlin,
Aspects of Micro Black Hole Evaporation

V disertaciji so predstavljeni različni vidiki raziskovanja pojavov izhlapevanja mikroskopskih črnih lukenj. Takšne črne luknje lahko ustvarimo v Velikem hadronskem trkalniku ali pri trčenju kozmičnih žarkov ekstremnih energij z delci v zemeljski atmosferi.

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Vsebina disertacije je zanimiva tudi za širše področje raziskovanja končnih faz izhlapevanja črnih lukenj.

V prvem delu disertacije so povzete dosedanje raziskave na področju fizike črnih lukenj in povezave med črnimi luknjami in teorijami z dodatnimi dimenzijami prostora-časa. Najpomembnejša vloga teh dodatnih dimenzij je, da spreminjajo moč gravitacijske sklopitve in tako omogočajo nastanek mikroskopskih črnih lukenj v omenjenih procesih. Uvodni del disertacije se nadaljuje s podrobno razpravo o modifikacijah Hawkingovega sevanja s faktorji sivih teles ter raziskavo kvazinormalnih načinov, ki predstavljajo resonance črnih lukenj.

Nadaljnja poglavja predstavljajo samostojno delo kandidatke in vsebujejo izračune kvazinormalnih načinov in faktorjev sivih teles. Posebno zanimive so nove izpeljave faktorjev sivih teles ter raziskava vpliva le-teh na numerične simulacije razpada mikroskopskih črnih lukenj.

V zaključnem poglavju kandidatka uporabi izračun kvazinormalnih načinov kot orodje za preverjanje izvedbe modela končne faze izhlapevanja črnih lukenj na osnovi Vaidya metrike.

This thesis presents various aspects of interest for the study of the evaporation of microscopic black holes. These black holes may be created at the LHC or in collisions between ultra high energy cosmic rays with the particles in the earth's atmosphere. In addition, the contents of this thesis are also of interest for the more general study of the final stages of black hole evaporation.

The first part of the thesis consists of a summary of relevant background material related to classical black hole physics and black holes in fundamental theories that contain extra dimensions. The main role of these extra dimensions is to alter the strength of the gravitational coupling and thus enabling micro black holes to be formed in the above processes. The summary continues with a detailed discussion of the modifications of Hawking radiation by grey-body factors and the study of quasi-normal modes that represent the resonances of a black-hole.

The final chapters contain original material and calculations of quasi-normal modes and grey-body factors. In particular there are new derivations of grey-body factors and also a study of the impact of these on numerical simulations of microscopic black hole decay.

In the final chapter the calculation of quasi-normal-like modes is used as a tool to examine the feasibility of a model of the final stages of black hole evaporation based on the Vaidya radiating metric.

Študijski program Ekonomika in tehnike konservatorstva arhitekturne in krajinske dediščine (tretja stopnja)

- **Karla Sánchez Torres**; *mentor: prof. Mauro Bertagnin*,
Earthen architecture, tradition and modernity: Local self construction
through building tradition and technological innovation opportunities in
Chiapas, Mexico

Ilovnata arhitektura predstavlja gradbeno tradicijo številnih avtohtonih skupnosti v Mehiki, predvsem v zvezni državi Chiapas, kjer obstaja veliko število primerov, ki so dragocen vir informacij ter plodna tla za poglobljeno raziskavo o potencialu tradicionalnih gradbenih tehnik za razumevanje trajnostne gradnje tudi danes.

Kljub dejstvu, da je pomen ilovnate arhitekture razširjen po vsem svetu, je tradicionalna ilovnata arhitektura v Chiapasu komajda dokumentirana, brez primernih sistematičnih raziskav, ki bi bile namenjene ohranjanju te pomembne tradicije avtohtonih skupnosti, ki pogosto živijo v ogroženih razmerah. Ravno zato, raziskovalno delo predstavlja uporabo ilovnate zemlje, ne le kot tradicionalni gradbeni material avtohtonih skupin v Chiapasu, temveč tudi kot verodostojni izraz arhitekturne zapuščine avtohtone kulture in ključni potencial za razvoj samograditeljstva.

V prvem delu disertacije je predstavljen splošen pregled in prevladujoče znanje o ilovnati arhitekturi, predvsem prek pregleda bibliografskih, zgodovinskih in tehničnih virov, kakor tudi specifične študije ilovnate arhitekture v Mehiki. Drugi del obravnava rezultate raziskav terenskega dela, ki je obravnaval specifičnost ilovnate arhitekture v Chiapasu prek vzorčenja, testiranja, fotografskih referenc in intervjujev.

Analize rezultatov terenskega kažejo, da je lokalno prebivalstvo pokazalo poseben interes za kontinuiteto ilovnate gradbene tradicije, navkljub daljnosežnosti globalizacijskih gradbenih trendov. Ravno zato, zaključni del disertacije obravnava priročnik, katerega glavni cilj je izboljšava tradicionalnih gradbenih sistemov ilovnate arhitekture preko uvedbe številnih manjših variacij gradbenih tehnologij in sugestij za trajnostno upravljanje bivalnega prostora, brez da bi se žrtvoval pridih in preprostost lokalne gradbene tradicije, kar daje

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nove možnosti za lokalni razvoj skozi ohranjanje gradbene tradicije ilovnate arhitekture.

Earthen architecture represents a long building tradition of numerous indigenous communities in Mexico, in particular in the state of Chiapas, where a significant number of examples embody a rich historical tradition of earthen architecture and a valuable source of information, hence a fertile ground for a deeper investigation on its potential significance and, more broadly, for a greater understanding of sustainable building today.

Despite the fact that the relevance of earthen architecture is widespread all over the world, traditional earthen architecture in Chiapas is scarcely documented, it lacks systematic research projects aimed at preserving this important tradition of these indigenous groups who often live in precarious conditions. Hence, this research highlights not only the widespread employment of earth as a traditional building material for the indigenous groups of Chiapas, but also its additional function as being an authentic expression of the architectural legacy of indigenous culture and thus a key potential factor for the development of the self construction.

The first part of the dissertation introduces a general overview and prevailing knowledge on earthen architecture, mainly through investigating the bibliographic, historical and technical sources as well as the particular studies on earthen architecture in Mexico. The second part discusses the results of the field studies related to the specific conditions of earthen architecture in Chiapas through sampling, testing, photographic reference and interviews.

The results of the field studies demonstrate that the local population has shown a particular interest in the continuity of the earthen building tradition, in spite of far-reaching globalisation building trends.

For this reason the final part of dissertation proposes the manual. The main objective of the manual is to improve the traditional earthen building system by introducing a number of minor variations to the building technologies and new sustainable suggestions for the management of the living space, without sacrificing the flair and simplicity found within the local building tradition, thus giving new opportunities for the development of local populations through the preservation of the earthen building tradition.

Študijski program Primerjalni študij idej in kultur (tretja stopnja)

• **Katarina Šrimpf**, mentorici: dr. Monika Kropelj Telban in prof. dr. Maja Godina Golija, Ustno izročilo in kulturni spomin v zgornjem Obsotelju

Ustno izročilo v zgornjem Obsotelju je Katarina Šrimpf v svoji doktorski disertaciji predstavila celovito, obenem pa se je osredotočila na določene značilnosti, ki izstopajo. Njena raziskava je usmerjena predvsem na vlogo in funkcijo, ki ju ima ustno izročilo v tej regiji ter na elemente, ki so pomembni za ohranitev tradicionalnega pripovedništva in za nastajanje novih pripovednih vsebin in žanrov. Avtorica je pripovedništvo obravnavala predvsem z vidika pomena pripovedne kulture v določenem prostoru in času, zato je tudi analitični del svoje študije osredotočila na to problematiko.

Celovitost gradiva, ki je zbrano v disertaciji, omogoča popolnejšo analizo in predstavitev spreminjajoče vloge in mesta pripovedne kulture v določenih obdobjih v teh krajih. Najpomembnejše smernice razvoja ustnega izročila zgornjega Obsotelja je nakazala skozi pomen in vlogo, ki jo ima v družbenem in kulturnem življenju tamkajšnjega prebivalstva, predvsem pri vzpostavljanju lokalne pripadnosti in lokalne ter nacionalne identitete prebivalcev tega območja.

Delo je usmerjeno v raziskovanje določenih struktur, ki jih je avtorica posebej izpostavila in ločeno obravnavala. Tako je podrobno predstavila gradivo glede na umeščenost v prostorski in časovni kontekst, kjer je obravnavala folklorno izročilo vezano na določena mesta kulturne krajine. Izpostavila je lokalno identiteto, ki se konstruira skozi folkloro in se kaže zlasti v odnosu do »Drugegak«. Predstavila je tudi sodobne oblike uporabe pripovednega izročila na obravnavanem območju in izumljanje tradicij.

Rezultati študije prinašajo nova spoznanja, ki so pomembna za poznavanje pripovedne kulture ter za razumevanje njenega razvoja in njenih nosilcev.

In her doctoral thesis, Katarina Šrimpf provides an integral insight into the oral tradition in upper Obsotelje, and also focuses on certain distinctive local characteristics in particular. Her study centres on the role and function of oral tradition in this region as well as elements important for the preservation of traditional narrative and the creation of new narrative forms and genres. Since folk narrative is discussed mainly from the perspective of its significance in a given place and time

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the analytic part of the study addresses also this issue.

The integrity of the material presented in this thesis provides a thorough analysis and presentation of the changing role and position of traditional narrative in this region in different periods. The most important features of the development of oral tradition are presented through the role it plays in the social and cultural life of the local population, primarily in the establishment of local affiliation and local and national identity of the inhabitants in this area.

The research highlights certain structures that are important for the narrative tradition in this region. In this way, the author provides a detailed presentation of the analysed material in relation to its spatial and temporal context, in which folklore is discussed according to specific localities in the cultural landscape. Local identity constructed through folklore is expressed in particular in relation to the Other. Modern uses of the narrative tradition and inventions of traditions are presented. Results of this study provide new insights which are important for the understanding of the narrative culture, its development, and its bearers.

• **Andrej Stopar**; mentor: prof. dr. Oto Luthar,

V očeh razpadajočega imperija: Podoba Slovenije v Sovjetski zvezi in Rusiji v času slovenskega osamosvajanja (1990–1992)

Disertacija Andreja Stoparja *V očeh razpadajočega imperija: Podoba Slovenije v Sovjetski zvezi in Rusiji v času slovenskega osamosvajanja (1990 – 1992)* prinaša analitičen pogled na do zdaj znanstveno in strokovno nikoli obravnavano temo. Sovjetsko-ruski pogled na proces osamosvajanja – tudi Sovjetska zveza je v obravnavanem obdobju razpadla – za Slovenijo ni običajen. Še več, to, kar Slovenci razumemo kot emancipatorični akt, vrhunec linearno pisane nacionalne zgodovine, je za rusko okolje pretežno nacionalistično, separatistično dejanje. Analiza pogledov na razpad SFR Jugoslavije in jugoslovanskega sistema ter na slovenska prizadevanja za rusko priznanje neodvisnosti in suverenosti republike se opira na gradivo najpomembnejših sovjetskih in ruskih tiskanih medijev v obdobju od 1990 do 1992, na diplomatske vire, uradne izjave, komentarje akademskih krogov ter spominske in dnevniške zapise. Obravnava tega gradiva pa je vpeta v kontekst sovjetsko-ruskega notranjepolitičnega trenutka, razpada SZ, napetosti na politični sceni novonastale države in dinamike njenih zunanjepolitičnih konceptov. Kot ugotavlja Stopar, je »rusko priznanje Slovenije omogočilo kratkotrajno obdobje v evoluciji ruske zunanje

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politike, ki je bilo posledica spremenjenega mednarodnopolitičnega položaja po padcu Sovjetske zveze in specifične, za rusko tradicijo izjemne definicije nacionalnih interesov, kot jo je oblikoval zunanji minister Andrej Kozirjev (1990–1996).« Z izčrpnimi citati, kot je to za doktorske disertacije običajno, v Sloveniji neznanega ruskega gradiva je Andrej Stopar v slovenski historiografski prostor vnesel dragocen material za obravnavo začetkov dvostranskih političnih odnosov med državama.

The thesis of Andrej Stopar entitled "In the eyes of a crumbling empire: The image of Slovenia in the Soviet Union and Russia during the Slovenian independence (1990 - 1992)" provides an analytical view of the topic, which hasn't been scientifically and professionally thematised by now. The Soviet-Russian view of the process of independence – the collapse of the Soviet Union occurred during the same period of time – is not convenient for Slovenia. Moreover, what Slovenians consider to be an emancipatory act, the culmination of a linear national history, Russia predominantly understands as a nationalist, separatist act. The analysis of the views of the disintegration of Yugoslavia and the Yugoslav system, and of the Slovenian efforts for Russian recognition of the independence and sovereignty of the Republic, is based on the research of the most important Soviet and Russian print media in the period from 1990 to 1992, diplomatic sources, official statements, comments of the academic circles, memoirs and dairies. Handling of this material is embedded in the context of Soviet-Russia's internal political moment, the collapse of the Soviet Union, tensions on the political scene of the newly created state and the dynamics of its foreign policy concepts. As Stopar summarizes, "Russia recognized Slovenia only because of a short period in the evolution of its foreign policy, which was due to the changed international political situation since the fall of the Soviet Union, a period specific to the Russian tradition of definition of national interests, at the time formulated by Foreign Minister Andrei Kozyrev (1990 -1996)." With an exceptional amount of quotations, higher than usual in doctoral dissertations, Andrej Stopar presented much valuable material dealing with the beginnings of bilateral political relations between the two countries, to the Slovenian historiographical sphere.

Študijski program Interkulturni študiji – primerjalni študij idej in kultur

- **Maja Kolarevič**; *mentorici: doc. dr. Lilijana Šprah in dr. Barbara Potrata*,
Depression between biomedicine and Ayurvedic medicine – a case of patient experiences in Slovenia

Disertacija se osredotoča na »veliko depresijo«, ki se uvršča v psihiatrični kategorizaciji duševnih motenj na področje motenj razpoloženja. Problematika je trenutno izjemno aktualna saj depresivno motnjo razpoloženja danes uvrščamo med eno najpogostejših oblik duševnih motenj, njena pojavnost pa je glede na zdravstvene statistike še vedno v porastu. Raziskava je bila opravljena na področju skrbi za duševno zdravje, in sicer se je odvijala v dveh državah - v Sloveniji in v Indiji.

Namen raziskave je bil preučiti razlike med dvema pristopoma zdravljenja depresivne motnje: indijske medicine - ayurvede in biomedicine- psihiatrije, ki izhajata iz različnih konceptov razumevanja vzrokov motnje, njenega poteka in posledično terapevtskih intervencij. Glavni poudarek raziskave je bil na analizi in primerjavi prednosti ter pomanjkljivosti primerjanih medicinskih praks, kot jih doživljajo pacienti z depresijo.

Maja Kolarevič je izvedla študijo s pomočjo različnih metodoloških pristopov in s tem poglobila širši kontekst razumevanja depresivne motnje razpoloženja. Poleg tega disertacija zapolnjuje vrzel, ki vlada na področju raziskav zdravljenja velike depresivne motnje razpoloženja z ayurvedsko prakso v slovenskem okolju.

Učinki ajurvedske prakse na področju obravnave duševnih motenj so še vedno relativno slabo raziskani, prav tako prenos ajurvedske medicine v drugo kulturno okolje. Študije o zdravljenju duševnih motenj z ayurvedsko medicino v luči izkušnje evropskega uporabnika so izjemno redke. Zato iz znanstvenega vidika rezultati raziskave predstavljajo pomembno nadgradnjo aktualnega razumevanja pri nas še vedno prevladujočih konceptov medicinskih teorij in praks na področju duševnega zdravja in motenj razpoloženja.

The main focus of the dissertation is »major depression«, which ranks in a psychiatric categorization of mental disorders in the area of mood disorders. This issue is

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particularly important, since according to health statistics, depression today ranks among one of the most common forms of mental disorders, and its incidence is still on the rise. The study was conducted in mental health care area in Slovenia and in India.

The aim of the study was to examine the differences between the two approaches of depression treatments, arising from the different concepts (Indian medicine / Ayurveda and biomedicine / psychiatry) on understanding its causes, its course and consequently its therapeutic intervention. The main focus was on the advantages and disadvantages of compared practices as experienced by patients with depression.

Maja Kolarević has performed the study with different methodological approaches and expanded the knowledge about broader context of »major depression«. The dissertation importantly bridges the research gap on the treatment of major depressive disorders with Ayurvedic practice in Slovenian territory.

The effects of Ayurvedic practice as treatment of mental disorders are still relatively poorly studied, as well as the transfer of Ayurvedic medicine into a different cultural environment. Studies on the treatment of mental disorders with Ayurvedic medicine from the perspective of a European patient experience are on scarce. From the scientific point of view, the results of this research represent a significant progress in present understanding of dominant concepts of medical theories and practices in the field of mental health and mood disorders.

- **Urška Stolnik**; mentorja: prof. dr. Borut Telban in prof. dr. Ivan Šprajc,
Capoeira: conceptualization and presentation of the body

Doktorska disertacija Urške Stolnik je rezultat enaindvajsetmesečnega te-renskega dela med capoeiristi v Braziliji, predvsem v mestu Salvador, med letoma 2003 do 2013. Avtorica, ki je imela možnost za redno vadbo na štirih različnih akademijah, se v svojem delu osredotoča na zgodovinske spremembe v družbeni zaznavi telesa tako pri capoeiri kot v širši družbi. Družbene in politične realnosti različnih obdobj se jasno odražajo v tej brazilski nacionalni igri: včasih v smislu ponotranjenja in sprejetja družbenih hierarhij in včasih v smislu njihove zavrnitve. Napetosti med temnopoltimi in svetlopoltimi ter moškimi in ženskimi svetovi so stalno prisotne. Včasih videna kot borilna večšina ali ples, drugič kot igra in tretjič kot šport za doseganje zdravja in lepote, se capoeira izmika trdni in stalni opredelitvi. To izmikanje spominja na tri glavne karakteristike capoeire: *malandragem* (zvižajnost), *malícia* (prevara) in

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mandinga (zapeljevanje). V igri capoeire je prebrisanost taktika za preigravanje nasprotnika in način namernega odpiranja in zapiranja telesa. Tovrstna odpiranja in zapiranja se ne izključujejo, temveč obstajajo v sožitju in to ne zgolj na ravni capoeirista med igro, ampak tudi na ravni *rode*, akademije, skupine, šole in nenazadnje širše brazilske družbe. Vsa ta telesa težijo k temu, da bi bila zaprta in varna, ampak tega ne morejo doseči, če se prej ne odprejo. Avtorica zagovarja tezo, da je namerno odpiranje in zapiranje teles tako na individualnem kot na kolektivnem nivoju v Braziliji način ustvarjanja in izrabljanja različnih priložnosti za doseganje boljšega družbenega položaja in kvalitete življenja na splošno.

Urška Stolnik's doctoral dissertation is the result of twenty-one months of fieldwork among the capoeiristas in Brazil, primarily in the city of Salvador, between 2003 and 2013. She trained at four different academies and was able to focus on historical changes in social perception of body in both capoeira and wider society. Social and political realities of different eras are clearly reflected in this Brazilian national game: either in terms of incorporation and acceptance of social hierarchies or in terms of their rejection. Tensions between the black and white worlds and male and female ones are constantly present. Perceived sometimes as martial art or dance, sometimes as game, and yet other times as sport providing health and beauty, capoeira evades a firm and permanent definition. This resembles capoeira's three main characteristics: malandragem (trickery), malícia (deception) and mandinga (seduction). Cunningness, as a tactic to overplay the opponent, is a means of intentional opening and closing of the body. These openings and closings are not exclusive but coexist in symbiosis not just at the level of playing the game, but also at the level of roda, academia, group, school, and wider Brazilian society. All of these bodies are striving to be closed and secure. This, however, cannot be accomplished before opening themselves first. The author argues that intentional opening and closing of the body on both individual and collective level in Brasil is a way of creating and negotiating different opportunities in order to reach a better social position and improve the quality of life generally.

Študijski program Znanosti o okolju

- **Milana Karajić**; mentorja: prof. dr. Danijel Vrhovšek in prof. dr. Sidney A. Katz, Water salinity and the efficiency of constructed wetlands

Doktorantka je v svoji disertaciji obravnavala način enostavnejših fitoremediacijskih rešitev, kjer se čiščenje vode izvaja s pomočjo rastlin ter s produkcijo biomase. Osredotočila se je na učinkovitost čiščenja odpadne vode z povišano slanostjo z uporabo naravnih čistilnih sistemov. Učinkovitost čiščenja odpadne vode s povišano slanostjo je v raziskavi spremljala tudi z pilotnim modelom čistilne naprave z inokuliranimi halotolerantnimi mikroorganizmi.

V disertaciji je doktorandka sledila glavnim raziskovalnim hipotezam:

- Biokemijski procesi so zmanjšani in učinkovitost rastlinske čistilne naprave je reducirana pri določeni slanosti odpadne vode.
- Halotolerantni mikroorganizmi so tolerantni na variacije slanosti v odpadni vodi in lahko učinkovito odstranjujejo onesnaževalce iz odpadne vode.

V disertaciji je doktorantka ugotovila, da povečanje slanosti negativno vpliva na učinkovitost rastlinske čistilne naprave Dragonja, čeprav korelacija ni bila signifikantna. Prav tako ugotavlja, da je na učinkovitost pilotskega modela, inokuliranega z halotolerantnimi mikroorganizmi, večji vpliv imela aeracija in prisotnost saharoze (kot organskega izvira ogljika), kot spremembe v slanosti vode. Disertacija predstavlja enovit prispevek k nadaljnjemu razvoju bolj učinkovitih rastlinskih čistilnih naprav za slane odpadne vode.

Zelo malo informacij, o podobnih pristopih, se poroča v literaturi doslej, zlasti v zvezi z dolgoročno interpretacijo podatkovnih nizov kot iz RČN Dragonja in namenske testne serije pomočjo inovativnog eksperimentalnog modela. V tej tezi, je bilo zagotovo prikazano, da halotolerantni mikroorganizmi lahko izboljšajo odstranitve KPK v RČN oziroma filtrirni napravi, mešanici peska in gramoza, in da ta vrsta organizmov ni pokazala občutljivost na spremenljivke, kot so višja stopnja slanosti.

Doctoral student in her dissertation dealt with simpler Phytoremediation solution, where the water treatment is performed by plants as well as with the production of biomass. It focused on the efficiency of wastewater treatment with elevated salinity using natural wastewater treatment systems. The efficiency of the treatment of wastewater with elevated salinity was also monitored by the pilot plant gravel - sand filter inoculated with halotolerant microorganisms.

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- The doctoral dissertation is pursuing the following main research hypotheses:*
- *Biochemical processes are repressed and constructed wetland (CW) treatment efficiency is reduced at elevated salinity of influent wastewater.*
 - *Halotolerant microorganisms are tolerant to variation in wastewater salinity and can efficiently remove the pollutants from the wastewater.*

In the doctoral thesis it was discovered that an increase in salinity negatively affects the efficiency of constructed wetland Dragonja, although the correlations were not significant. It was discovered that removal efficiency of the pilot plant inoculated with halotolerant microorganisms was more influenced by aeration and the presence of saccharose (as organic carbon source) than by the variations in the salinity of the wastewater. The dissertation presents a uniform contribution to the further development of more effective constructed wetlands for saline wastewater. Very little information on somewhat similar approaches is reported in literature so far, especially regarding the long-term interpretation of data sets from Dragonja CW, and dedicated test series using the innovative experimental set-up. It was definitely shown in this thesis that halotolerant microorganisms can enhance COD removal in CW or sand-gravel type of treatment facilities, and that these types of organisms showed no sensitivity to variable, as well as higher salinity.

Študijski program Znanosti o okolju (tretja stopnja)

- **Marko Kete**; *mentorici: prof. dr. Urška Lavrenčič Štangar in dr. Monica Celotto*, Towards efficient removal of contaminants in water from household appliances by TiO₂-photocatalysis: design, optimization and performance studies of the photoreactor with immobilized catalysts

Človeštvo se sooča z vse večjimi potrebami po neoporočeni vodi. Lažje onesnažena odpadna voda iz gospodinjstev, t.i.m. siva voda, predstavlja vir vode, ki se po primernem postopku čiščenja lahko ponovno uporabi. V ta namen je potrebno odstraniti prisotna onesnažila, pogosto so to razne površinsko aktivne snovi in tekstilna barvila.

Marko Kete je uporabil napredni oksidacijski metodi, TiO₂-fotokatalizo in fotokatalitsko ozonacijo, za mineralizacijo izbranih onesnažil. S poglobljeno strukturno in morfološko karakterizacijo ter študijo aktivnosti je pokazal na pomembnost več dejavnikov pri izbiri katalizatorja. Izbrane komercialno dostopne praškaste katalizatorje

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lizatorje je s sol-gel postopkom pripravil v obliki mehansko trdnih tankih plasti z namenom njihove uporabe v kompaktnem reaktorju za čiščenje sive vode, ki ga je tudi izdelal po svojih izvirnih zamislih. Večjo čistilno kapaciteto kljub manjšim dimenzijam kompaktnega reaktorja v primerjavi s predhodnim prototipnim je dosegel z nosilci za katatalizator iz penjenega monolita Al_2O_3 z veliko površino in s postavitvijo UV-sijalk v središče reaktorja. S študijami razgradnje treh vrst onesnažil (surfaktanti, modro barvilo, fenol) v destilirani in vodovodni vodi je pokazal, da je fotokatalitska ozonacija učinkovita metoda za čiščenje sive odpadne vode. Kljub uporabi relativno šibkih UV-sijalk je v kompaktnem reaktorju s svojimi imobiliziranimi katalizatorji uspel doseči kratke razpolovne čase mineralizacije (od 13 minut za modro barvilo do 53 minut za mešanico štirih onesnažil v vodovodni vodi). Marko Kete je s svojim znanjem, praktično iznajdljivostjo in pozitivnim odnosom do dela doktorat opravil z odliko. V času doktorskega študija je v soavtorstvu objavil 7 znanstvenih člankov v revijah s faktorjem vpliva.

Mankind faces an increasing demand of clean water resources. Less polluted wastewater released from households, so-called grey water, represents a source of water that could be reused after appropriate treatment. To this aim pollutants should be removed, among them we often find surfactants and textile dyes.

Marko Kete used advanced oxidation methods, TiO_2 -photocatalysis and photocatalytic ozonation, for mineralization of selected pollutants. With detailed structural, morphological characterization and activity studies he pointed out importance of several factors when choosing appropriate catalyst. From some commercially available powder catalysts he synthesized mechanically stable coatings, with the aim of applying them in a compact reactor for grey wastewater treatment that he also designed and constructed. In spite of smaller dimensions of compact reactor compared to the previous prototype one, he achieved higher cleaning capacity by applying foamed Al_2O_3 monolith as a catalyst support and by placing UV-lamps in center of the reactor. Degradation studies of three types of pollutants (surfactants, blue dye, phenol) in distilled as well as tap water showed good efficiency of photocatalytic ozonation for grey wastewater treatment. Although UV-lamps with low intensity were used in the compact reactor with his immobilized catalysts, he succeeded to achieve short half lives of mineralization (from 13 minutes for blue dye up to 53 minutes for a mixture of four pollutants in tap water).

Marko Kete did his PhD with distinction owing to his knowledge, practical skills and positive attitude to work. He published 7 scientific articles in SCI journals during his doctoral study.

