



Archaeogenomic analysis of genetic and cultural interactions in Neolithic Anatolian societies

Ergebnisse

Projektinformationen

NEOGENE

ID Finanzhilfvereinbarung: 772390

[Projektwebsite](#)

DOI

[10.3030/772390](https://doi.org/10.3030/772390)

Projekt abgeschlossen

EK-Unterschriftsdatum

17 Mai 2018

Startdatum

1 Juni 2018

Enddatum

31 Mai 2024

Finanziert unter

EXCELLENT SCIENCE - European Research Council (ERC)

Gesamtkosten

€ 2 556 250,00

EU-Beitrag

€ 2 556 250,00

Koordiniert durch

MIDDLE EAST TECHNICAL UNIVERSITY



Türkei

CORDIS bietet Links zu öffentlichen Ergebnissen und Veröffentlichungen von HORIZONT-Projekten.

Links zu Ergebnissen und Veröffentlichungen von RP7-Projekten sowie Links zu einigen Typen spezifischer Ergebnisse wie Datensätzen und Software werden dynamisch von [OpenAIRE](#) abgerufen.

Leistungen

[Data Management Plan](#)

NEOGENE Data Management Plan: The project involves production of human and sheep ancient DNA data (generated by whole genome shotgun sequencing and genotyping) and radiocarbon data. It also includes compiling genetic data and archaeological material culture data from literature surveys and correspondence with research teams. We will ensure that the data remains findable, accessible, interoperable and re-usable in the following ways: - All mapped genome sequencing data (in .bam format) will be made available through the European Nucleotide Archive (<https://www.ebi.ac.uk/ena>), following the current standard procedure in the archaeogenomics field; - All processed genome datasets (in PLINK flat files format, .map and .ped) and radiocarbon dating results of the biological samples will be available through our local web server at METU; - All raw material culture datasets (in spreadsheet format) will be available through our local web server at METU; - All computer code used in the analyses will be shared through GitHub (github.com), and also through our local web server at METU; - All raw sequencing data (in .fastq format) will be available upon request, following the current standard procedure in the aDNA field (raw aDNA shotgun sequencing reads are usually not submitted to databases as the majority of reads represent microbial contamination, thus hindering data reuse); - All raw sequencing data and radiocarbon dating results will be stored in two physically separate servers at METU for ensuring data safety; - All analysis results will be published in open access journals or choosing the open access option. We will further encourage all archaeology and anthropology teams working with us to openly share their data through "Open Context" (www.opencontext.org; a subproject of Alexandria Archive Institute) and through Digital Archaeology Record (www.tdar.org).

Veröffentlichungen

[Buchkapitel \(2\)](#)

[Intramural burials in Neolithic Anatolia: What do they tell us about social organisation?](#) 

Autoren: Mehmet Somel, N. Ezgi Altınışik, Yılmaz Selim Erdal, Çiğdem Atakuman, Füsün Özer

Veröffentlicht in: "Kinship, sex, and biological relatedness: the contribution of archaeogenetics to the understanding of social and biological relations", ed: Meller, Krause, Haak, Risch.", 2023, Seite(n) 137-147, ISBN 978-3-96929-259-4

Herausgeber: Landesmuseum für Vorgeschichte

DOI: 10.11588/propylaeum.1280

Peopling the Landscape of Çatalhöyük: Reports from the 2009-2017 Seasons (British Institute at Ankara Monograph) Hardcover – 28 Jan. 2021 <https://www.amazon.co.uk/Peopling-Landscape-%C3%87atalh%C3%B6y%C3%BCk-2009-2017-Institute/dp/1912090783>

Autoren: Yaka R., Doğu A., Kaptan D., Dağtaş N. D. , Chyleński M., Vural K. B. , Altınışik N. E. , Mapelli I., Koptekin D., Karamurat C., Gemici H. C. , Yorulmaz S., Lagerholm V. K. , Fer E., Işıldak U., Ghalichi A., Kılınç G. M. , Mazzucato C., Juras A., Marciniak A., Larsen C. S. , Pilloud M., Haddow S. D. , Knüsel C. J. , Togan İ., Götherström A., Erdal Y. S. , Sürer E. , Özer F., Ata

Veröffentlicht in: Peopling the Landscape of Çatalhöyük, 2021, Seite(n) 395-405

Herausgeber: The British Institute of Archaeology at Ankara

Fachlich begutachtete Artikel (14)

[Archaeogenetic analysis of Neolithic sheep from Anatolia suggests a complex demographic history since domestication](#) 

Autoren: Erinç Yurtman, Onur Özer, Eren Yüncü, Nihan Dilşad Dağtaş, Dilek Koptekin, Yasin Gökhan Çakan, Mustafa Özkan, Ali Akbaba, Damla Kaptan, Gözde Atağ, Kivılcım Başak Vural, Can Yümni Gündem, Louise Martin, Gülşah Merve Kılınç, Ayshin Ghalichi, Sinan Can Açıkan, Reyhan Yaka, Ekin Sağlıcan, Vendela Kempe Lagerholm, Maja Krzewińska, Torsten Günther, Pedro Morell Miranda, Evange

Veröffentlicht in: Communications Biology volume, Ausgabe 4, Article number: 1279 (2021), 2021, ISSN 2399-3642

Herausgeber: NATURE

DOI: 10.1038/s42003-021-02794-8

["A network of mutualities of being": socio-material archaeological networks and biological ties at Çatalhöyük submitted to Journal of Archaeological Method and Theory."](#) 

Autoren: Camilla Mazzucato, Michele Coscia, Ayça Küçükakdağ Doğu, Scott Haddow, Muhammed Siddik Kılıç, Eren Yüncü, Mehmet Somel

Veröffentlicht in: Journal of Archaeological Method and Theory., 2024, ISSN 2331-8422

Herausgeber: Cornell University [1991]-

DOI: 10.48550/arxiv.2406.19149

[CONGA: Copy number variation genotyping in ancient genomes and low-coverage sequencing data](#) 

Autoren: Arda Söylev, Sevim Seda Çokoglu, Dilek Koptekin, Can Alkan, Mehmet Somel

Veröffentlicht in: Plos Computational Biology, 2022, ISSN 1553-7358

Herausgeber: Plos Computational Biology

DOI: 10.1371/journal.pcbi.1010788

[Variable kinship patterns in Neolithic Anatolia revealed by ancient genomes](#)

Autoren: Reyhan Yaka, Igor Mapelli, Damla Kaptan, Ayça Doğu, Maciej Chyleński, Ömür Dilek Erdal, Dilek Koptekin, Kivılcım Başak Vural, Alex Bayliss, Camilla Mazzucato, Evrim Fer, Sevim Seda Çokoglu, Vendela Kempe Lagerholm, Maja Krzewińska, Cansu Karamurat, Hasan Can Gemici, Arda Sevkar, Nihan Dilşad Dağtaş, Gülşah Merve Kılınç, Donovan Adams, Mehmet Somel

Veröffentlicht in: Current Biology, 2021, ISSN 0960-9822

Herausgeber: Cell Press

DOI: 10.1016/j.cub.2021.03.050

[Techno-typology and provenance of the obsidian chipped stones from Sofular Höyük, an Early Neolithic settlement near the Kızılırmak in Central Anatolia](#)

Autoren: Murat Karakoç; Hasan Can Gemici; Murat Dirican; Okşan Başoğlu; Çiğdem Atakuman

Veröffentlicht in: Documenta Praehistorica, Vol 50 (2023), Ausgabe 4, 2023, ISSN 1854-2492

Herausgeber: Ljubljana: Založba Univerze v Ljubljani

DOI: 10.4312/dp.50.5

[Spatial and temporal heterogeneity in human mobility patterns in Holocene Southwest Asia and the East Mediterranean](#)

Autoren: Dilek Koptekin, Eren Yüncü, Ricardo Rodríguez-Varela, N. Ezgi Altınışik, Nikolaos Psonis, Natalia Kashuba, Sevgi Yorulmaz, Robert George, Duygu Deniz Kazancı, Damla Kaptan, Kanat Gürün, Kivılcım Başak Vural, Hasan Can Gemici, Despoina Vassou, Evangelia Daskalaki, Cansu Karamurat, Vendela K. Lagerholm, Ömür Dilek Erdal, Emrah Kırdök, Aurelio Marangoni, Andreas Schachner, Handan Üs

Veröffentlicht in: Current Biology, Ausgabe Volume 33, Ausgabe 1, 9 January 2023, 2022, Seite(n) Pages 41-57.e15, ISSN 1879-0445

Herausgeber: Science Direct

DOI: 10.1016/j.cub.2022.11.034

[A genomic snapshot of demographic and cultural dynamism in Upper Mesopotamia during the Neolithic Transition](#)

Autoren: N. Ezgi Altınışik; Duygu Deniz Kazancı; Ayça Aydoğan; Hasan Can Gemici; Ömür Dilek Erdal; Savaş Sarıaltun; Kivılcım Başak Vural; Dilek Koptekin; Kanat Gürün; Ekin Sağlıcan; Daniel Fernandes; Gökhan Çakan; Meliha Melis

Koruyucu; Vendela Kempe Lagerholm; Cansu Karamurat; Mustafa Özkan; Gülşah Merve Kılınç; Arda Sevkar; Elif Sürer; Anders Götherström; Çiğdem Atakuman;

Veröffentlicht in: Science Advances, Ausgabe 7, 2022, ISSN 2375-2548

Herausgeber: Science Advances

DOI: 10.1126/sciadv.abo3609

[Human inbreeding has decreased in time through the Holocene](#)

Autoren: Ceballos, Francisco C.; Gürün, Kanat; Altınışik, N. Ezgi; Gemici, Hasan Can; Karamurat, Cansu; Koptekin, Dilek; Vural, Kivılcım Başak; Mapelli, Igor; Sağlıcan, Ekin; Sürer, Elif; Erdal, Yılmaz Selim; Götherström, Anders; Özer, Füsün; Atakuman, Çiğdem; Somel, Mehmet

Veröffentlicht in: CURRENT BIOLOGY, Ausgabe 2, 2021, Seite(n) P3925-3934.e8, ISSN 1097-4172

Herausgeber: CELL PRESS

DOI: 10.1016/j.cub.2021.06.027

[The first complete genome of the extinct European wild ass \(*Equus hemionus hydruntinus*\)](#)

Autoren: Mustafa Özkan; Kanat Gürün; Eren Yüncü; Kivılcım Başak Vural; Gözde Atağ; Ali Akbaba; Fatma Rabia Fidan; Ekin Sağlıcan; N. Ezgi Altınışik; Dilek Koptekin; Kamilla Pawłowska; Ian Hodder; Sarah E. Adcock; Benjamin S. Arbuckle; Sharon R. Steadman; Gregory McMahon; Yılmaz Selim Erdal; C. Can Bilgin; Eva-Maria Geigl; Anders Götherstrom; Thierry Grange; İnci Togan; Füsün Özer; Meh

Veröffentlicht in: Molecular Ecology- Biorvix, Ausgabe 7, 2023, ISSN 0962-1083

Herausgeber: Blackwell Publishing Inc.

DOI: 10.1101/2023.06.05.543765

[Benchmarking kinship estimation tools for ancient genomes using pedigree simulations](#)

Autoren: Şevval Aktürk, Igor Mapelli, Merve N. Güler, Kanat Gürün, Büşra Katırcıoğlu, Kivılcım Başak Vural, Ekin Sağlıcan, Mehmet Çetin, Reyhan Yaka, Elif Sürer, Gözde Atağ, Sevim Seda Çokoğlu, Arda Sevkar, N. Ezgi Altınışik, Dilek Koptekin, Mehmet Somel

Veröffentlicht in: Molecular Ecology Resources, 2024, ISSN 1755-098X

Herausgeber: Blackwell Publishing Inc.

DOI: 10.1111/1755-0998.13960

[MTaxi : A comparative tool for taxon identification of ultra low coverage ancient genomes](#)

Autoren: Gözde Atağ; Kivılcım Başak Vural; Damla Kaptan; Mustafa Özkan; Dilek Koptekin; Ekin Sağlıcan; Sevcin Doğramacı; Mevlüt Köz; Ardan Yılmaz; Arda Söylev; İnci Togan; Mehmet Somel; Füsün Özer

Veröffentlicht in: Open Research Europe, Ausgabe 5, 2022, ISSN 2732-5121

Herausgeber: Open research Europe

DOI: 10.1101/2022.06.06.491147

[Investigating DNA methylation changes associated with food production using paleogenomes published in Biorxiv and Evolutionary Applications \(accepted\).](#) 

Autoren: Sevim Seda Çokoğlu; Dilek Koptekin; Fatma Rabia Fidan; Mehmet Somel

Veröffentlicht in: Evolutionary Applications, 2023, ISSN 0071-3260

Herausgeber: Kluwer Academic/Plenum Publishers

DOI: 10.1101/2023.11.04.565610

[Population Genomic History of the Endangered Anatolian and Cyprian Mouflons in Relation to Worldwide Wild, Feral, and Domestic Sheep Lineages](#) 

Autoren: Gözde Atağ, Damla Kaptan, Eren Yüncü, Kivılcım Başak Vural, Paolo Mereu, Monica Pirastru, Mario Barbato, Giovanni Giuseppe Leoni, Merve Nur Güler, Tuğçe Er, Elifnaz Eker, Tunca Deniz Yazıcı, Muhammed Siddık Kılıç, Nefize Ezgi Altınışik, Ecem Ayşe Çelik, Pedro Morell Miranda, Marianne Dehasque, Viviana Florida, Anders Götherström, Cemal Can Bilgin, İnci Togan, Tors

Veröffentlicht in: Genome Biology and Evolution, Ausgabe Volume 16, Ausgabe 5, 2024, ISSN 1759-6653

Herausgeber: Oxford University Press

DOI: 10.1093/gbe/evae090

[Comparison and optimization of protocols and whole-genome capture conditions for ancient DNA samples](#) 

Autoren: Reyhan Yaka; Maja Krzewińska; Vendela Kempe Lagerholm; Anna Linderholm; Füsün Özer; Mehmet Somel & Anders Götherström

Veröffentlicht in: Biotechniques, Ausgabe Volume 76, 2024 - Ausgabe 5: BioTechniques, 2023, ISSN 1940-9818

Herausgeber: Future Science Ltd

DOI: 10.2144/btn-2023-0107

Dissertationen (1)



ARCHAEOGENOMIC ANALYSIS OF POPULATION GENETIC RELATIONSHIPS AND KINSHIP PATTERNS IN THE SEDENTARY SOCIETIES FROM NEOLITHIC ANATOLIA
Supervisor: Mehmet Somel, Fusun Ozer

Autoren: Reyhan Yaka
Veröffentlicht in: 2020
Herausgeber: METU

Nicht von unabhängiger Seite geprüfte Artikel (6)

[Female lineages and changing kinship patterns in Neolithic Çatalhöyük](#) 

Autoren: Eren Yüncü, Ayça Küçükakdağ Doğu, Damla Kaptan, MuhammedSiddik Kılıç, Camilla Mazzucato, MerveN. Güler, Elifnaz Eker, Büşra Katırcıoğlu, Maciej Chyleński, Kivılcım Başak Vural, Arda Sevkâr, Gözde Atağ, N. Ezgi Altınışik, Fatma Küçük Baloğlu, Defne Bozkurt, Jessica Pearson, Marco Milella, Cansu Karamurat, Şevval Aktürk, Ekin Sağlıcan, Nisan Yıldız

Veröffentlicht in: BioRxiv (awaiting editorial decision from Science), 2024, ISSN 0000-0000

Herausgeber: Cold Spring Harbor Laboratory

DOI: 10.1101/2024.06.23.600259

[READv2: Advanced and user-friendly detection of biological relatedness in archaeogenomics](#) 

Autoren: Erkin Alaçamli, Thijessen Naidoo, Şevval Aktürk, Merve N. Güler, Igor Mapelli, Kivılcım Başak Vural, Mehmet Somel, Helena Malmström, Torsten Günther

Veröffentlicht in: bioRxiv, Genome Biology (under second round of revision), 2024, ISSN 1474-760X

Herausgeber: London: BioMed Central Ltd, 2001

DOI: 10.1101/2024.01.23.576660

[Out-of-Anatolia: cultural and genetic interactions during the Neolithic expansion in the Aegean](#) 

Autoren: Dilek Koptekin, Ayca Aydogan, Cansu Karamurat, N. Ezgi Altinisik, Kivılcım Basak Vural, D. Deniz Kazanci, Ayca Kucukakdag Dogu, Damla Kaptan, Hasan Can Gemici, Eren Yuncu, Gulsun Umurtak, Refik Duru, Erkan Fidan, Ozlem Cevik, Burcin Erdogan, Taner Korkut, Christopher J. Knusel, Scott Haddow, Clark Spencer Larsen, Rana Ozbal, Fokke Gerritsen, Eylem Ozdogan, Uygur Ozan Usanmaz, Yasin Cemre Derici, Mi

Veröffentlicht in: "bioRxiv- awaiting editorial decision from ""Science""", 2024, ISSN 2692-8205

Herausgeber: bioRxiv

DOI: 10.1101/2024.06.23.599747

[MTaxi: A comparative tool for taxon identification of ultra low coverage ancient genomes](#) 

Autoren: Gözde Atağ, Kivılcım Başak Vural, Damla Kaptan, Mustafa Özkan, Dilek Koptekin, Ekin Sağlıcan, Sevcân Doğramacı, Mevlüt Köz, Ardan Yılmaz, Arda Söylev, İnci Togan, Mehmet Somel, Füsün Özer

Veröffentlicht in: Open Research Europe, 2022, ISSN 1539-3704

Herausgeber: PUBMED, National Institute of Health

DOI: 10.12688/openreseurope.14936.3

[An explanation for the neighbour repulsion phenomenon in Patterson's f-statistics](#), 

Autoren: Gözde Atağ; Mehmet Somel

Veröffentlicht in: bioRxiv, Genetics (under second revision), 2024, ISSN 1943-2631

Herausgeber: Genetics

DOI: 10.1101/2024.02.17.580509

[Pre-processing of paleogenomes: Mitigating reference bias and postmortem damage in ancient genome data posted on bioRxiv and under second round of revision in Genome Biology](#), 

Autoren: Dilek Koptekin, Etkä Yapar, Kivılcım Başak Vural, Ekin Sağlıcan, N. Ezgi Altınışik, Anna-Sapfo Malaspinas, Can Alkan, Mehmet Somel

Veröffentlicht in: bioRxiv, Genome Biology (under second round of revision), 2023, ISSN 1474-760X

Herausgeber: London BioMed Central Ltd 2001-

DOI: 10.1101/2023.11.11.566695

Sonstiges (1)



[New insights on commemoration of the dead through mortuary and architectural use of pigments at Neolithic Catalhöyük, Turkey](#), 

Autoren: Schotsmans, E M J; Busacca, G; Lin, S C; Vasi  , M; Lingle, A M; Veropoulidou, R; Mazzucato, C; Tibbetts, B; Haddow, S D; Somel, M; Toksoy-K  ksal, F; Kn  sel, C J; Milella, M

Veröffentlicht in: NATURE-Scientific Reports, Ausgabe 7, 2022, ISSN 2045-2322

Herausgeber: Nature Publishing Group

DOI: 10.1038/s41598-022-07284-3

Datensätze

Datensätze via OpenAIRE (9)



[Supplemental Data](#), 

Autoren: Yaka, Reyhan; Mapelli, Igor; Kaptan, Damla; Doğu, Ayça; Chyleński, Maciej; Erdal, Ömür Dilek; Koptekin, Dilek; Vural, Kivılcım Başak; Bayliss, Alex; Mazzucato, Camilla; Fer, Evrim; Çokoğlu, Sevim Seda; Lagerholm, Vendela Kempe; Krzewińska, Maja; Karamurat, Cansu; Gemici, Hasan Can; Sevkar, Arda; Dağtaş, Nihan Dilşad; Kılınç, Gülşah Merve; Adams, Donovan; Munters, Arielle R.; Sağlıcan, Ekin; Milella, Marco; Schotsmans, Eline M.J.; Yurtman, Erinc; Çetin, Mehmet; Yorulmaz, Sevgi; Altınışik, Ezgi; Ghalichi, Ayshin; Juras, Anna; Bilgin, C. Can; Günther, Torsten; Storå, Jan; Jakobsson, Mattias; de Kleijn, Maurice; Mustafaoğlu, Gökhan; Fairbairn, Andrew; Pearson, Jessica; Togan, İnci; Kayacan, Nurcan; Marciniak, Arkadiusz; Larsen, Clark Spencer; Hodder, Ian; Atakuman, Çiğdem; Pilloud, Marin; Sürer, Elif; Gerritsen, Fokke; Özbal, Rana; Baird, Douglas; Erdal, Yılmaz Selim; Duru, Güneş; Özbaşaran, Mihriban; Haddow, Scott D.; Knüsel, Christopher J.; Götherström, Anders; Özer, Fusun; Somel, Mehmet

Veröffentlicht in: Zenodo

[Investigating food production-associated DNA methylation changes in paleogenomes: lack of consistent signals beyond technical noise](#) 

Autoren: Çokoğlu, Sevim Seda; Koptekin, Dilek; Fidan, Fatma Rabia; Somel, Mehmet

Veröffentlicht in: Zenodo

[Investigating food production-associated DNA methylation changes in paleogenomes: lack of consistent signals beyond technical noise](#) 

Autoren: Çokoğlu, Sevim Seda; Koptekin, Dilek; Fidan, Fatma Rabia; Somel, Mehmet

Veröffentlicht in: Zenodo

[CONGA: Copy number variation genotyping in ancient genomes and low-coverage sequencing data](#) 

Autoren: Soylev, Arda; Cokoglu, Sevim Seda; Koptekin, Dilek; Alkan, Can; Somel, Mehmet

Veröffentlicht in: Zenodo

[Simulated Ancient Genomic Kinship Dataset: VCF and BAM \(1x\) Files for Related \(including inbred\) Pairs](#) 

Autoren: Aktürk, Şevval; Mapelli, Igor; Güler, Merve N.; Somel, Mehmet

Veröffentlicht in: Zenodo

[Simulated Ancient Genomic Kinship Dataset: BAM \(5x run7-12\) Files for Related \(including inbred\) Pairs](#) 

Autoren: Aktürk, Şevval; Mapelli, Igor; Güler, Merve N.; Somel, Mehmet

Veröffentlicht in: Zenodo

[Simulated Ancient Genomic Kinship Dataset: BAM \(5x run1-6\) Files for Related \(including inbred\) Pairs](#) 

Autoren: Aktürk, Şevval; Mapelli, Igor; Güler, Merve N.; Somel, Mehmet
Veröffentlicht in: Zenodo

[Spatial and temporal heterogeneity in human mobility patterns in Holocene Southwest Asia and the East Mediterranean](#) 

Autoren: Koptekin, Dilek
Veröffentlicht in: Zenodo

[Genotype Data for "A genomic snapshot of demographic and cultural dynamism in Upper Mesopotamia during the Neolithic Transition"](#) 

Autoren: Altınışik, N. Ezgi; Somel, Mehmet
Veröffentlicht in: Zenodo

Weitere Forschungsprodukte

Weitere Forschungsprodukte über OpenAire (1)



["A network of mutualities of being": socio-material archaeological networks and biological ties at Catalhöyük](#) 

Autoren: Mazzucato, Camilla; Coscia, Michele; Doğu, Ayça Küçükakdağ; Haddow, Scott; Kılıç, Muhammed Sıddık; Yüncü, Eren; Somel, Mehmet
Veröffentlicht in: arXiv

Letzte Aktualisierung: 13 September 2024

Permalink: <https://cordis.europa.eu/project/id/772390/results/de>

European Union, 2025