Kinsources and Puck
Open data and free tools for analyzing kinship networks

kinsources
archive, share, analyze and compare kinship data

Group « Kintip » - Kinship and Computing (Traitement informatique de la Parenté)

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Puck

www.kintip.net

Program for the use and computation of kinship data

Puck (*) is a free, powerful and evolving multi-platform software for managing, processing and analyzing individual and relational data using statistics, partitions, circuit searches and simulations.

Puck is based on:

- Simple and open data formats to assure data conservation : text format and native Puck (XML) format.
- Interoperability with standard software: Open Office, Microsoft Excel, Gedcom (genealogy software), Pajek...
- Possibility of coding and processing data of different kind: individual properties, kinship relations, social networks, and (coming) terminological and geographical information.

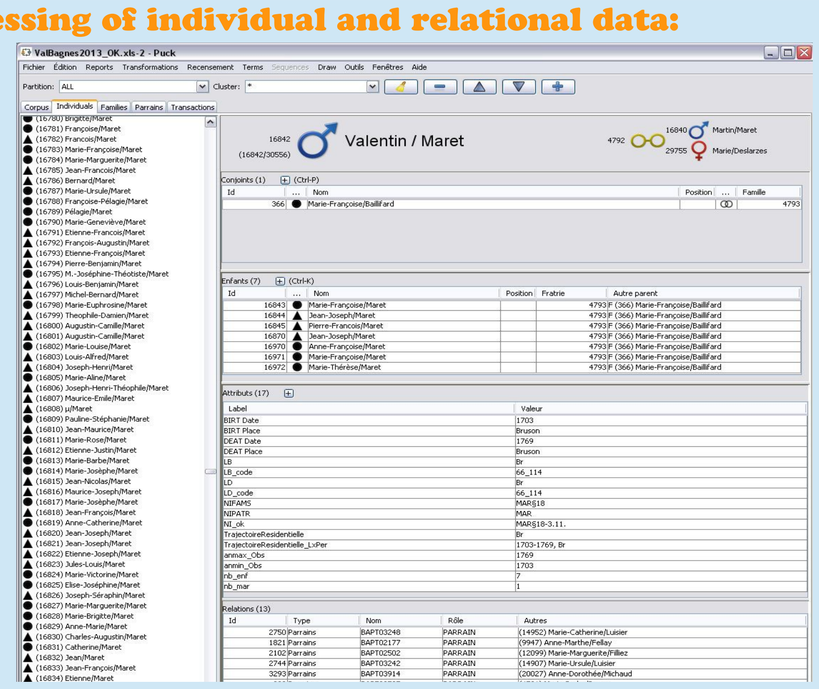
Creation and processing of individual and relational data:

Data creation

- Entering
- Coding
- Import
- Export
- Transformation
- Update
- Merging

Data processing

- Search
- Navigation
- Exploration
- Selection
- Visualization



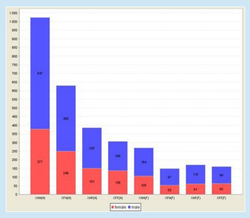
Data analysis:

General dataset statistics

- Dataset diagnostics (inconsistencies, possible biases)
- Statistical review of dataset structure and properties

Dataset segmentation

- Creation of sub-datasets by multiple criteria
- Segment reduction, extension and extraction
- Aggregate data, produce alliance and flow networks



Relational census:

Matrimonial census

Counting matrimonial circuits and analyzing their patterns

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2	96 circuits (maximal depths = [2])											
3	4 circuit types (average frequency = 24.0)											
4	90 couples concerned (4.11 % of 2190 couples examined)											
5	175 individuals concerned (2.97 % of 5890 individuals examined)											
6												
7												
8	96 circuits of order 1 (maximal depth = 2) (100.0 %)											
9	4 circuit types (100.0 %) (average frequency = 24.0)											
10	90 couples concerned (100.0 %), 4.11% of all couples											
11	175 individuals concerned (100.0 %), 2.97% of all individuals											
12												
13	Nr	Standard	Positional	Vector	#Circuits	% Circuits	# Couples	% Couples	% All Couples	# Individuals	% Individuals	% All Individuals
14	1	FBD	HH()HF	[-7, -8]	24	25.0	24	26.67	1.1	48	27.43	0.81
15	2	FZD	HH()FF	[-7, -10]	23	23.96	23	25.56	1.05	46	26.29	0.78
16	3	MBD	HF()HF	[-9, -8]	30	31.25	30	33.33	1.37	60	34.29	1.02
17	4	MZD	HF()FF	[-9, -10]	19	19.79	19	21.11	0.87	38	21.71	0.65
18												

	A	B	C	D	E	F	G
1	Sortable list						
2							
3	Nr.	Standard	Positional	Vector	Ego	Alter	Pivots	Chain
4	1	FBD	HH()HF	[-7, -8]	192	204	Charles / IV / d'Espagne = Marie Louise / de Parme	192 152 () 148 204
5	1	FBD	HH()HF	[-7, -8]	320	319	Joseph / du Portugal = Bénédicte / du Portugal	320 213 () 311 319
6	1	FBD	HH()HF	[-7, -8]	337	339	Philippe / II (Le Regent) / d'Orléans = Françoise Marie / de Blois	337 25 () 58 339
7	1	FBD	HH()HF	[-7, -8]	566	567	Ernest Louis / I / de Saxe-Meiningen = Dorothée / de Saxe-Gotha-Altenbourg	566 850 () 541 567

General relational census

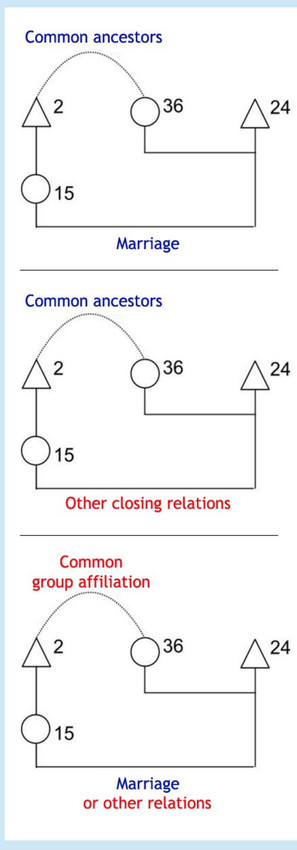
Closing relations other than marriage:

- Equivalence relations (shared properties)
- Exogeneous relations
- Open chains

Semi-classificatory census

Matrimonial and relational circuits based on group affiliation

Creating new relations from census results



Simulating kinship networks:

Simulation by parameters, by transformation (« reshuffling »), extraction (« virtual fieldwork »), or inverse simulation (« machine learning »)

(*) Puck: *Program for the Use and Computation of Kinship data* - © Groupe TIP / CNRS - Created in 2007, published under Licence CeCILL 2 - Written by Klaus Hamberger, Christian Momon, Edoardo Savoia and Telmo Menezes (in Java 1.6) - Download: www.kintip.net - Forum: www.kinsources.net/agora/forums.xhtml

References: Hamberger and Daillant (2008), « L'analyse de réseaux de parenté. Concepts et outils », *Annales de Démographie Historique* 116, 13-52 ; Hamberger, Houseman and White (2011), « Kinship Network Analysis », In P. Carrington and J. Scott (dir.) *The Sage Handbook of Social Network Analysis*, London, Sage Publications, 533-549 ; Hamberger, Houseman and Grange (2014), « Scanning for patterns of relationship: analyzing kinship and marriage networks with Puck 2.0 », *History of the Family*

Kinsources

www.kinsources.net

Archive, share, analyse and compare kinship data

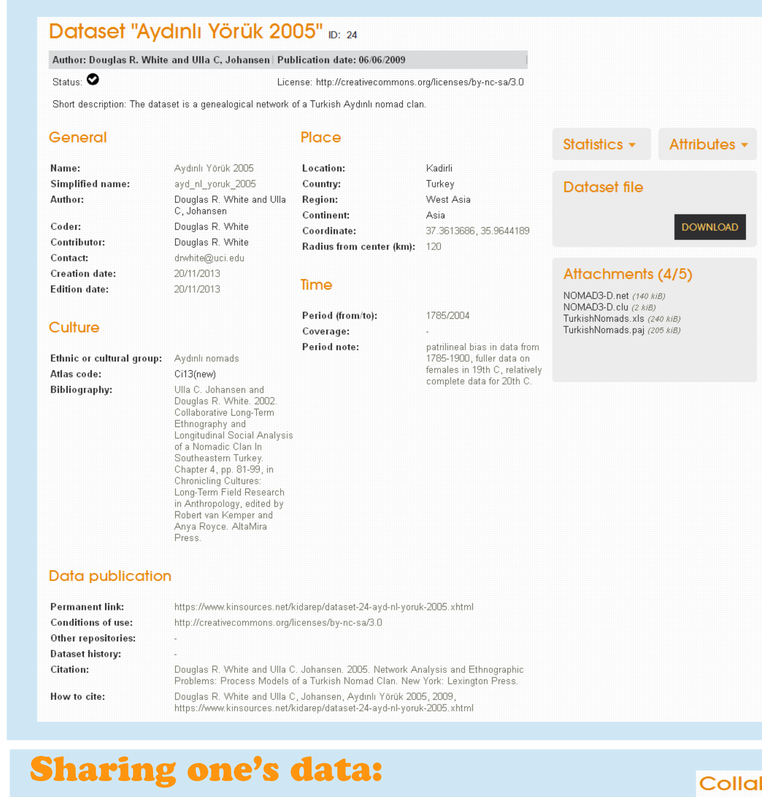
Kinsources.net is an open and interactive platform to archive, share, analyze and compare kinship data (genealogies, terminologies, residential and relational data).

Kinsources offers:

- A safe data repository with simple functions for archiving and publishing kinship datasets, valorizing the authors' work and protecting their rights.
- An opportunity to participate in the open access turn of the social sciences, which aims to assure the reproductibility and comparability of scientific analysis through open data sharing.

Many datasets of anthropologists, historians and demographers have already been published at Kinsources.net.

Discover the website and download a dataset !



Archiving one's data:

Saving one's data

In a sustainable and secure repository hosted by a public operator

Describing one's data

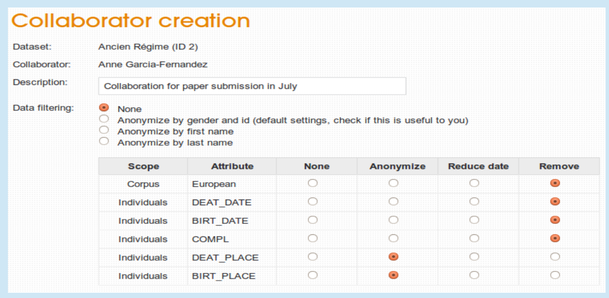
- Indicating metadata for stored datasets
- Adding complementary documentation and bibliographical references

Managing one's data

- Every Kinsources contributor manages his or her own space
- Coming soon:
  Dataset version management
  Dataset collection management

Sharing one's data:

Share your dataset with your collaborators



Publishing a dataset

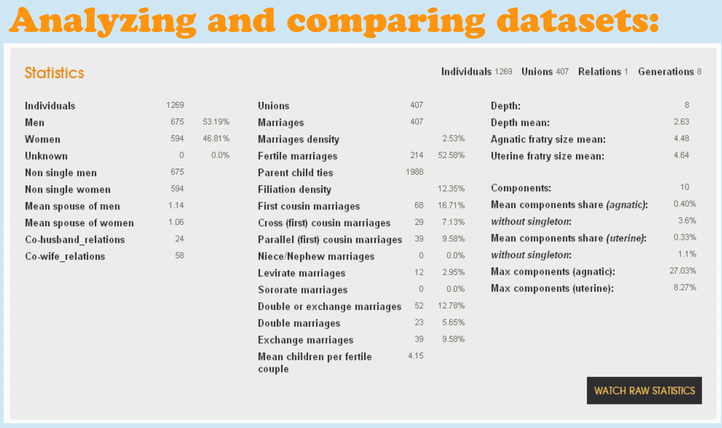
- Automatic data consistency control
- Validation by a scientific board
- Generation of a permanent link for citation

Ex : https://www.kinsources.net/kidarep/dataset-24-ayd-nl-yoruk-2005.xhtml

Choosing forms of data sharing and publishing

Anonymization, types of information, licence, etc.

Analyzing and comparing datasets:

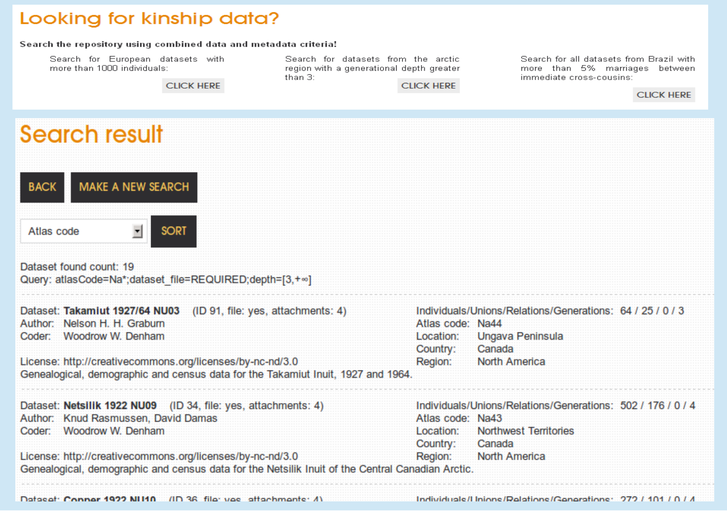


Analyzing a dataset

- Get a statistical scan of the dataset
- Download a dataset
- Complex analyses based on advanced kinship software (Puck, KinOath)

Search for datasets by different search criteria

- By metadata (period, place, language, etc.)
- By dataset statistics (generational depths, percentage of cousin marriages, etc.)



Get in contact with dataset contributors

- Suggest corrections
- Complete datasets
- Contribute to collective research work