



DATABASE DESCRIPTION

NATURAL LAW 1625-1850: DATABASE



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INTRODUCTION

Database URL: naturallawdatabase.thulb.uni-jena.de

Project Framework: [Natural Law 1625-1850. An International Project](#)

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Database Funding: University of Erfurt

The *Natural Law 1625-1850: Database* is part of the larger research framework *Natural Law 1625-1850. An International Project*, whose members are studying the development of early modern natural law, its interaction with other intellectual genres and its influence on state, church and society during the period 1625-1850. The initial focus on Europe will eventually be widened to the global perspective demanded by the subject. Next to conferences and the book series *Early Modern Natural Law: Studies & Sources* (Brill Publishers), the *Natural Law 1625-1850: Database* constitutes the third main component within this research framework.

CONCEPT AND PURPOSE

The *Natural Law 1625-1850: Database* is an online, open-access, attribute-based biobibliographical database of early modern natural law scholars. The main purpose with the database is to establish a knowledge hub, where researchers easily can find and browse biographical and bibliographical data as well as dig deeper into the world of natural law by accessing commentaries by leading experts in the field. Whether you are seeking specific biographical data or historiographical information of particular scholars, or are interested in learning who worked on early modern natural law at a certain university, at a certain faculty, in a certain region during a selected period, or are searching for commonly used groupings or “schools” (e.g. Wollfian), this database provides the necessary tools and information.

In this regard, it should be noted that the *Natural Law 1625-1850: Database* is a collaborative open-ended project, meaning that the database is continuously expanding with updated and new data, which are provided by the research community. It is estimated that in the next couple of years several hundred profiles from all parts of Europe will be created. The next aim is to implement analytical and explorative tools (c.f. Planned Analytical Functions below).

MAINTENANCE AND SUSTAINABILITY

Thanks to the close collaboration between MWK/FZG/FB Gotha at the University of Erfurt and ThULB and JUSTORANGE in Jena, permanent maintenance and sustainability of the *Natural Law 1625-1850: Database* has been secured. The authority of the database project lies with the *Natural Law 1625-1850. An International Project* based at MWK/FZG and is being conducted in close cooperation with IZEA, Halle. ThULB, as a firmly established and secure institution, hosts and provides the digital infrastructure for the database. The technical updates, expansion and general maintenance are ensured by the Jena-based IT Firm JUSTORANGE, who is collaborating with ThULB. The database project is thus rooted in established institutions, ensuring a continued digital longevity. It goes without saying that the database also subscribes to the FAIR Data Principles (findable, accessible, interoperable and reusable) for an open and freely available data access

DEVELOPMENT PLAN

The development and implementation of the Natural Law 1625-1850: Database is planned in three instalments:

- First instalment (completed: 2018/2019): The technical development of core structure of the database, meaning the implementation of the (a) back and front end system, (b) user interfaces, (c) search and filter options. Funded by Forschungsbibliothek Gotha, implemented by JUSTORANGE.
- Second instalment (completed: 2019/2020): The optimisation of the functionalities of the database and the contributor system, meaning the implementation of (a) a web-based contributor system, (b) data export options (Excel/XML/XSLT/PDF), (c) IIIF-Viewer, (d) GND BEACON Service, (e) improved Data Filter Options. Funded by Forschungsbibliothek Gotha and the University of Erfurt's ProForschung20 Anschubfinanzierung for this research proposal, implemented by JUSTORANGE.
- Third Instalment (2021/2022): The development of the database's analytical capacities (thereby transforming the database from a working tool into an actual analytical tool), meaning the implementation of the application 'A Digital Exploration Tool for Statistical, Geo-Visual and Network Analysis'.

PROJECT WEBPAGE

The *Natural Law 1625-1850: Database* is located on the project webpage: naturallawdatabase.thulb.uni-jena.de. Besides access to the database, the webpage consists of six additional pages of information:

Project Page for the Natural Law 1625-1850: Database

Project	Description of the natural law project.
User Information	Information about how to use the database.
Database	Access to the database.
Geography	The Geography of Natural Law Scholars provides an overview of all the profiles, arranged according to geographical region and institutional affiliation.
How to Contribute?	Explanation of how users can contribute to the database. Access point to the Web Based Contributor System. A List of names of all profile authors and contributors.
Contact	Contact details of the editors.
Imprint	Imprint.
Privacy	Legal text for the use of the webpage.

DATABASE – FRONT END

STRUCTURE

The database consists of an inventory of bio-bibliographical profiles of natural law scholars (mainly academics). The inventory is shown immediately when the database is accessed, and it lists all the profiles alphabetically by default but can be searched and filtered by using the database functionalities (c.f. Database Functionality below). Each profile in the inventory list is set beside the person's name and picture together with the most essential profile data: date and place of birth and death, confession, institutional affiliations and profile specific key words. This enables the user easily to navigate through the database's many profiles to find and access the content.

Database Inventory

PROJECT		USER INFORMATION		DATABASE		GEOGRAPHY		HOW TO CONTRIBUTE?		CONTACT		IMPRINT		PRIVACY	
	Budde (Buddeus), Johann Franz (* 1667.07.25 † 1729.11.19)		Show profile		Show digital copy										
Born	1667.07.25, Anklam														
Died	1729.11.19, Gotha														
Confession	Protestant														
Institutional Affiliation	University of Halle, University of Jena														
Keyword Filters	Protestant														
	Böhmer, Justus Henning (* 1674.01.19 † 1749.08.29)		Show profile		Show digital copy										
Born	1674.01.19, Hanover														
Died	1749.08.29, Halle														
Confession	Protestant														
Institutional Affiliation	University of Halle														
Keyword Filters	Protestant														
	Christiani, Wilhelm Ernst (* 1731.04.23 † 1793.01.09)		Show profile		Show digital copy										
Born	1731.04.23, Kiel														
Died	1793.01.09, Kiel														
Confession	Protestant, Lutheran														
Institutional Affiliation	University of Kiel														
Keyword Filters	Protestant, Lutheran														

PROFILE CONTENT

The aim of the individual profiles is to provide the reader with a bio-bibliographical view of the selected scholar that is as complete and user-friendly as possible. Each profile is organised in six parts, providing the reader with an easily navigable and legible overview of each section. It is important to note, that besides a classic text flow biography, the main component of the profiles is the structured biographical data which enables analytical and explorative uses of the database.

Example of a Profile

« Back to Overview Last Update: 07.10.2020

Böhmer, Justus Henning (* 1674.01.19 † 1749.08.29)

Basic Overview Data

Born	1674.01.19, Hanover
Died	1749.08.29, Halle
Confession	Protestant
Institutional Affiliation	University of Halle
Keyword Filters	Protestant
VIAF:	99130913 ↗
GND:	118512617 ↗ ⊕
Important Family Relations:	Father, Valentin Böhmer (1634 - 1704), Lawyer and Imperial Notary in Hannover

[Biographical and Intellectual Profile](#) ▾
[Biographical Data](#) ▾
[Bibliographical Data](#) ▾
[Natural Law Network](#) ▾
[References and Acknowledgement](#) ▾

BASIC OVERVIEW DATA

This section provides the user with a quick overview of the profile’s most basic information. The section contains the following:

- Fundamental profile information: ‘Birth’ (place and date), ‘Death’ (place and date), ‘Confession’, ‘Institutional Affiliation’, and ‘Important Family Relations’.
- Key Words, which are used not only as ‘normal’ guidelines for the user to place the profile in a relevant context but also as structured categories for the ‘Key Word Filter Option’ (c.f. Database Functionality below).
- Each profile is moreover linked to GND and VIAF. Where possible (mainly for profiles from the German region), GND Beacons have also been installed, which makes it possible for the user immediately to see all related GND of the profile by clicking on the + sign. Peer-reviewed profiles will furthermore be sent to the *Forschungsbibliothek Gotha* to be inscribed in the GND system. Not only does this link the database to the GND/VIAF systems, but by appearing in these general systems each peer-reviewed profile also receives a much larger visibility.

BIOGRAPHICAL AND INTELLECTUAL PROFILE

The text flow biography is arranged under three headings in order to create structural similarity between the profiles. These headings are:

- *Biography*: a short biography written in essay form.
- *Comment on main natural law works*: Comment on the profile's main works on natural law made by members of the research network. This will also help the user to navigate through the bibliographical section (see below).
- *Comment on profile's conception of natural law*: Comment on the profile's conception of natural law made by members of the research network. This will provide the user with a general understanding of the profile's views and position within the natural law debates.

With its essayistic form, the biography section complements the structured biographical data.

BIOGRAPHICAL DATA

This section provides a structured biographical view of the profile organised in two main parts: academic data and professional data. These parts are divided in subcategories, each containing a sentence based on a row of underlying structured data cells from the back end. Moreover, each data point in the sentence – be it a place, an institution, a position, etc. – can, if necessary, be marked 'uncertain', thus indicating for the reader to treat this individual piece of information with caution.

The biographical data section contains the following categories:

Academic Data

- *Studies*: Periods, Institutions, Places, Known Teachers
- *Academic Degrees*: Dates, Degree Types, Institutions, Places, Praeses
- *Academic Travels*: Periods, Places
- *Academic Teaching*: Years, Semesters, Subjects, Tuition Types, Faculties, Institutions, Places

Professional Data

- *Career*: Periods, Positions, Institutions, Places
- *Titles, Memberships and Other Relevant Roles*: Periods, Names, Institutions, Places

Uncertainty marker

Uncertainty markers have been built into the database. This makes it possible to indicate which data points are uncertain and to be treated with caution. These uncertainty markers are also invitations for any user to find evidence so the uncertainty marker can be lifted. The temporal uncertainty markers (uncertain begin or end dates) follow the ISO standards for such data uncertainties using slash and dots symbols as indicators: ../ for *before* and /.. for *after* a certain date.

Examples:

../1753, Studied theology at Halle University (Before 1753, the given person studied theology at Halle University)

1744/.., Doctor Juris at Helmstedt University (After 1744, the given person was awarded the Doctor in Law at Helmstedt University)

1788/.. - ../1793, ordinary professor at Kiel University (In an uncertain period after 1788 until sometime before 1793 the given person was an ordinary professor at Kiel University)

For all other data uncertainties no ISO standards exist, and we indicate such uncertainties with ^①.

Examples:

1766-1778^①, extraordinary professor in natural law at Greifswald University, Faculty of Law (Meaning it was uncertain whether the given person stopped being an extraordinary professor in 1778).

1755, Magister Philosophiae at University of Halle^① (Meaning that it is uncertain whether this degree was awarded at Halle University).

BIBLIOGRAPHICAL DATA

The bibliographical data section is not structured, but works like a normal bibliography. It shows all the profile's printed and manuscript material relevant to natural law only, and it provides, where possible, links to digital versions, enabling the user quickly to consult the selected source. Moreover, all editions of the profile's works are also shown, as this is important for our understanding of the impact and dissemination of the work. The section is organised in the following way:

Printed Sources

- *Books*
- *Dissertations*
- *Periodica and Compiled Works*
- *Ego-Documents and Biographical Materials*

Manuscript Sources

- *Manuscripts*
- *Correspondence*
- *Ego-Documents and Biographical Materials*

NATURAL LAW NETWORK

This section provides a structured view of the connections that the profile had to other natural law scholars. The section is divided into two; ‘direct personal connections’ established through direct contact (meetings, teaching, same work place, etc.), and ‘epistolary connections’. Besides listing the other natural law scholars that the profile was in contact with, this section also lays the basis for mapping out the larger natural law network.

REFERENCES AND ACKNOWLEDGEMENT

This last section contains, first, an acknowledgement of all who have contributed to the profile, and secondly, a bibliography of all sources and published works that have been used to create the profile.

DATABASE – BACK END

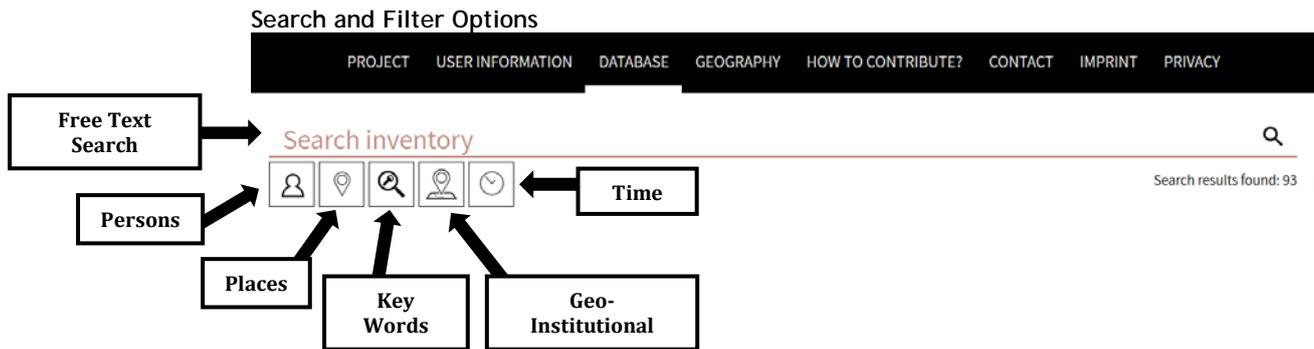
The database is developed within the Typo3 system, which makes it possible also for non-IT specialists on an editorial level to work with the back end. In order to ensure academic responsibility and to secure a standardised format, the back end is only available for the editor and general editors. Users are highly encouraged to contribute to the database, which is done by contacting the editor.

The pre-defined data mask in the back end also enables the editor to structure the biographical data according to the above-mentioned categories, thereby turning each data point into applicable data that is required for any database functionality (see below). Moreover, by using linked data to *GeoNames*, all the biographical events are ensured geographical location markers, making it possible to visualise and map any events. This is an essential element for the geo-visual component of the database.

DATABASE FUNCTIONALITY

SEARCH AND FILTER FUNCTIONS

Several search and filter options have been implemented on the basis of the structured biographical data. These functions, which also can be combined, help the user easily to find or group individual profiles, thus turning the database into a dynamic reservoir of knowledge with basic explorative functions.



SEARCH OPTION

The entire inventory can be searched according to any user-defined words by means of the 'Search Inventory' field at the top of the database page. The search engine provides the user with the results by showing all profiles where this word appears. This function can be used simply and quickly to search for a specific profile, but also to explore the inventory according to a selected word or combination of words. For example, by searching on 'Christian Wolff' the database profile on Christian Wolff will naturally appear, but also all other profiles where Wolff is mentioned. Thus in the profile on Daniel Nettelblatt, Christian Wolff will be shown as Nettelblatt's teacher. By using this inventory search function, the user can thus easily conduct basic explorative searches.

FILTER OPTION

The 'Filter Options' makes it possible to filter all the profiles according to predefined categories.

Alphabetic Filter – Persons

This simple option filters the inventory of profiles alphabetically according to the profiles' last name. This is especially useful, if the correct spelling of a name is not immediately remembered.

Alphabetic Filter – Places

Similar to the alphabetic filter option for persons, this option filters the profiles according to places. This is especially useful if one wishes to see who was active at a certain place, not only in relation to professional career (institutional affiliations) but in all aspects of recorded life events, such as studies, degrees, travels etc.

Key Words Filter

This option is based on the key words which appear in each profile's basic overview data. The key words can simply be selected from the list, and the entire inventory of profiles will be filtered according to the selected key words; for example, Wolffian, Thomasian, Thomist, Protestant, etc. This enables the user immediately to explore certain predefined groups.

Geo-Institutional Filters

This option filters the profile inventory first according to geographical region and secondly to institutional affiliation (c.f. Geography of Natural Law Scholars below). This is an easy way to find all natural law scholars working at one university or even in one entire region.

Time Filters

This option filters the profile inventory according to a user selected time period. The selection criteria are based on the birth and death dates of the profiles. In case that dates are unknown to the decade (e.g. 174x) the unknown number is treated as a zero. In case the unknown date extends to the century (e.g. 17xx), the specific profile is left out of the filtering.

WORK, SHARE AND DOWNLOAD FUNCTIONS

DATA EXPORT

Data export allows the user to use, re-use, access and share the data. Any use of the data, naturally, needs proper referencing both to the profile authors and also the database editors. The following export options are currently being developed by the JUSTORANGE and are expected implemented in the beginning of 2021.

Export as PDF

Export the selected profile as a PDF file, following the same structure as seen in the database, that is Basic Overview Data, Picture, and the five categories with subcategories.

Export as XML, XSLT.

Export the structured Biographical Data as an XML or XSLT file

Export as EXCEL

Export the structured Biographical Data as Excel data.

IIIF-VIEWER

The implementation of an IIIF-Viewer (Mirador) is currently being implemented by JUSTORANGE and it is expected to be operational in the beginning of 2021. This additional working feature will make it possible to compare, personally annotate, and share the database's linked digitalised material.

PLANNED ANALYTICAL FUNCTIONS

An additional development stage (Stage 3: Analytical Tool) has already been conceptualised and planned. The intention with this last development stage is to transform the *Natural Law 1625-1850: Database* from a knowledge reservoir into an analytical research tool, where users in addition to profile explorations and searches can conduct also statistical and geographical analyses, with a much stronger explorative element. Due to the structured biographical data, the foundation for such statistical visualisations, mapping and network analysis is ensured (see below).

STATISTICAL VISUALISATION

On the basis of structured biographical data, a statistical option will be implemented showing user-defined developments. This could, for example, be the combined development of natural law scholars according to faculty affiliation, in order to demonstrate disciplinary shifts at certain universities or regions.

GEO-VISUALISATION

The aim with this expansion is proportionally to visualise any event or compilation of events on a map, making mass statistics possible. Every biographical event takes place at a specific point in time and space, and since these places have been marked in the structured biographical data, we have created the foundation for the mapping and visualisation of the biographical events. With geo-visualisation it would be possible to identify patterns and shift in patterns over time.

NETWORK VISUALISATION

Another useful function is network visualisation. Since the *Natural Law 1625-1850: Database* obviously contains many names, not only the profiles' names but also names within the each profile: teachers, students, *praeses*, colleagues, correspondents, etc. Linking these names together, would make it possible to visualise the natural law network in a selected time period, indicating new or unknown connections and demonstrating certain learned circles.

GEOGRAPHY OF NATURAL LAW SCHOLARS

In order to provide the user with a systematic overview of all known profiles, a static geo-institutional overview has been created on a separate page next to the database page. All profiles have been compiled in this overview and arranged according to geographical region and institutional affiliation. The page consists of three layers; the first shows Europe divided into regions; the second contains a list of universities and other learned institutions within the selected region; and the third contains a list of natural law scholars, who were affiliated with the university or learned institution selected. It should be noted that even regions, universities and profiles where no data have been collected or profile texts written are shown in the database overview, hence making it clear how far we are, where assistance is needed and where blank spots exist.

USER CONTRIBUTION

The *Natural Law 1625-1850: Database* is first of all an international collaborative project. This means that in order for the database to be truly useful, data on natural law scholars from all relevant areas need to be collected and contributed, especially (but not only) by the members of the research community on natural law. We therefore encourage anyone with interest, material or expertise to contribute to the project.

KINDS OF CONTRIBUTION

There are basically two kinds of contribution to the database: bio-bibliographical data (cf. the profile sections 'Biographical Data' and 'Bibliographical Data') and biographical essays (cf. the profile section 'Biography'). Bio-bibliographical data contributions can be anything from single pieces of profile information and corrections to names of a natural law scholar or complete profiles. Since the biographical profiles often contain fragmented data and are missing information, any contribution, no matter how small, is appreciated. It is only through the use of source material that missing or fragmented data can be found and corrected, and since this material is spread across countries and institutions, we need international collaboration and coordination.

Whereas basically anyone can contribute with individual pieces of bio-bibliographical data, as long as documentation is provided, biographical essay contributions require, on the other hand, more expertise. Here we especially invite experts in the field to contribute with short essays about the individual scholars' life, work and general understanding of natural law.

HOW TO CONTRIBUTE

If you are interested in contributing, we invite you to read the *Guide for Contributors* and write the database editor (Mikkel.Jensen@uni-erfurt.de) for registration details.

Once registered, the contributor can access the Web-Based Contributor System (see below) through the access point on the webpage: '[How to Contribute](#)'.

WEB-BASED CONTRIBUTOR SYSTEM

A Web-Based Contributor System has been implemented in order to optimise the procedure for contributions and safely store each profile forms in the database. The Web-Based Contributor System is a closed system, between the back-end Typo3 system and the front end database view, where registered contributors can log in and create, adjust and submit their profile forms to the database editor. Through thirteen easy-to-follow pages, the system takes the contributor through the profile creation process, explaining each category on the way and gives suggestion to where additional information usually is found. Each category and data field in the contributor system correspond to the categories and data fields in the back end system. When the profile is accepted for publication, the profile data and text are automatically transferred to and made available in the database. The contributor can at any point save his or her work before submission. Upon submission, the editor is informed and the profile is forwarded to peer-review.

The Web-Based Contributor System makes it much easier for contributors to create profiles, thus fuelling the process of engaging in the database project.

ACKNOWLEDGEMENT

Any contributor to the database will be properly acknowledged either as a 'profile author' or 'profile contributor'. Profile authors are those who take the lead in writing the commentaries about a given profile, these contributions are subject to peer review and may be cited as such. Profile contributors are those who complement a profile with additional information. Both the profile authors and contributors will be credited on the individual profile page. However,

when citing an individual profile we generally recommend only citing the profile authors as indicated on each profile page.

A list of profile authors is shown on the 'How to Contribute' webpage.

