Acronyme	Nom complet	Adresse (URL)	Responsable(s), institution(s)	Objet	S'enregistrer	Remarques
PFA	Persepolis Fortification Archive Project	Persepolis Fortification http://oi.uchicago.edu/research/projects/pfa/ Archive Project	M. Stolper, (Oriental Institute, Univ. de Chicago)	Textes et images des archives des Fortifications de Persépolis	Accès aux données en fonction du statut de l'utilisateur	Nécessite le téléchargement d'une application JAVA sur l'ordinateur (OCHRE 7).
rimanum	rimanum: The House of Prisoners	http://oracc.org/rimanum/corpus	A. Seri (Oriental Institute, Univ. de Chicago)	Textes des archives du bît asîrî d'Uruk sous Rim-Anum	поп	378 textes.
RINAP	The Royal Inscriptions of the Neo-Assyrian Period	http://oracc.org/rinap	G. Frame (Univ. of Pennsylvania, Philadelphie)	Inscriptions royales NA (de Tiglat-phalasar III à Esarhaddon)	non	313 textes.
SAAo	State Archives of Assyria Online	http://oracc.org/saao	«With the kind Contenu de tous I permission of Pr. Simo volumes des SAA Parpola»	es	non	4819 textes transcrits, traduits et lemmatisés
SEAL	Sources of Early Akkadian Literature. A Text Corpus of Babylonian and Assyrian Literary Texts from the 3rd and 2nd Millennia BCE	http://www.seal.uni-leipzig.de/	M. Streck, (Leipzig) & Textes littéraires en N. Wasserman (HU langue akkadienne, férusalem) et 2e millénaires av J.C.	Textes littéraires en langue akkadienne, 3e et 2e millénaires av. J.C.	non	643 textes catalogués, en partie transcrits, traduits (en anglais) et lemmatisés.

WEB RESOURCES FOR HITTITOLOGY

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Scholars in Hittitology and Anatolian Studies have shown a keen interest in the development of web-based resources. Some of the tools currently available on the Internet are part of larger projects, which cover many different fields of Indo-European or Ancient Near Eastern studies, while others have a specific focus in the field of ancient Anatolia. In order to attempt a satisfactory review of the major resources that currently exist, I will start from the largest and most articulated project, the so-called Hethitologie Portal Mainz, and then proceed to the more specialized ones, dedicated either to linguistics and philology or to archaeology.

1. The Hethitologie Portal of the Akademie der Wissenschaften und der Literatur in Mainz.

The Hethitologie Portal, often and henceforth abbreviated as HPM, is a large, multifaceted project run by the Akademie der Wissenschaften und der Literatur in Mainz, and currently is directed by Gernot Wilhelm, and Gerfrid Müller, with a Board of Directors consisting of Doris Prechel, Elisabeth Rieken, and Daniel Schwemer. It was started in 2001 and it also includes projects from other universities and research centers. The Index page of the project, http://www.hethport.uni-wuerzburg.de/, is hosted on a server at the University of Würzburg and it contains links to internal projects and collaborations, as well as tools and bibliographical resources. In particular, the HPM hosts the following resources:

- Databases including:
 - Marie-Claude Trémouille's Répertoire onomastique (a collection of the Hittite personal names);
 - Müller and Wilhelm's revision of E. Laroche's CTH¹)
 - Silvin Košak's Konkordanz der hethitischen Texten, a large collection of meta-information regarding the single and joined texts from the Hittite corpus, which embeds Košak's join-sketches (Joinskizze) and likely represents the most successful web-based resource in the field of Hittitology (or at least the resource that one sees most frequently opened in the web-browsers of both scholars and students), as it quickly provides a large amount of epigraphic and archaeological information on the single tablet fragments, their joins, and a selection of publications published after 1971 (the date of Laroche's CTH)
- Publications: a downloadable collection of PDF files of several volumes in the series, Studien zu den Boğazköy-Texten, and all titles of the series, Hethitologie Portal Mainz, Materialien, a useful compendium to the HPM project, edited by the Mainzer Akademie.

¹) CTH refers to: E. Laroche, *Catalogue des textes hittites*, Paris 1971, with supplements in *RHA* 30 (1972): 94-133 and *RHA* 33 (1973): 68-71.

- Bibliographies: the HPM contains six different bibliographical collections, including:
 - The general bibliographical database managed by Massimiliano Marazzi, Müller, Wilhelm, and Jana Součková-Siegelová (probably the most complete and up-to-date available);
 - A systematic bibliography organized in a thematic index of topics (supervised by Součková- Siegelová and Müller);
 - Lexicographical bibliography containing the titles of studies dedicated to single lexical items of the Hittite language (by Marazzi and Natalia Bolatti Guzzo),
 - An online catalogue of the separata of the Bibliothek der Forschungsstelle in Mainz;
- Two large collections of secondary literature, the first one, by Yoram Cohen, Lorenzo d'Alfonso, and Dietrich Sürenhagen, dedicated to the bibliography on the texts found in Emar (Meskene), and the other, by Detlev Groddek, offering an impressive amount of bibliographical references to the single passages (*Textstellen*) of the edited Hittite texts.
- Text corpora: the HPM currently features three projects that offer textual materials. By far, the initiative Textzeugnisse der Hethiter is the richest, as it collects philological editions of several texts of the Hittite corpus, overviewed by scholars from different universities (to date, the HPM offers editions of Hittite Treaties, coordinated by Müller and Wilhelm; of Edicts, coordinated by Marazzi; of Myths, coordinated by Rieken; and of Rituals, coordinated by Prechel and Susanne Görke). Although many of them have already been published in books and the editions are in some cases quite derivative, the general level of philological innovation and the portability and accessibility of the online materials place this collection at the cutting edge of current research. Besides the Hittite Texts, the HPM also hosts Karl Hecker's initiative for a publication of the Old Assyrian Texts from Anatolia (Altassyrische Texte) and a project of publication of textual materials from Nuzi.

Finally, the HPM has tools for cuneiform and Anatolian hieroglyphic scripts, virtual keyboards, and documentation about the Unicode resources, while the *Facsimilia* section offers photographs of cuneiform tablets from the *Mainzer Photoarchiv* and several museums and collections (Durham University, Hermitage in St. Petersburg, *Vorderasiatisches Museum* in Berlin, and Chicago Oriental Institute), as well as a collection of photographs of Old Assyrian tablets and the innovative project Tontafel 3D, which has 3D scans and reproductions of original epigraphic *specimina*.

Additional resources, such as the list of addresses of scholars and researchers and the links to other projects and initiatives collaborating with the HPM complete the services provided by the largest web-based tool available to the scientific community of scholars in the field Ancient Anatolian studies.

2. Other initiatives oriented to philology and linguistics

The most important web-based initiatives dedicated to the philological and linguistic aspects of Hittitology can be categorized as text collections, collections of secondary literature, *lexica*, and other resources.

In addition to the several text collection initiatives clustered around the HPM, another important collection is offered by University of Frankfurt's TITUS project (http://titus.uni-frankfurt.de/indexe.htm. Managed by Jost Gippert, currently with the collaboration of Agnes Korn, the TITUS project is a partly limited-access online publication of Indo-European texts and didactic materials, which also includes collections in Hittite and other Anatolian languages.

The two largest scientific *lexica* of the Hittite language are the Chicago Hittite Dictionary, by the Oriental Institute (University of Chicago), and University of Munich's *Hethitisches Wörterbuch Projekt*. The former is available online as a java-based interface (http://ochre.lib.uchicago.edu/eCHD/), and the volumes of the dictionary are downloadable as PDFs (http://oi.uchicago.edu/research/pubs/catalog/chd/). The latter is not available online, but the project website offers an exhaustive online bibliography (http://www.assyriologie.uni-muenchen.de/forschung/hethwoerter-buch/abkuerzungen/index.html).

Lexica for other Anatolian languages are mainly still works in progress, but for the Luwian language H.C. Melchert's Luwian lexicon (http://www.linguistics.ucla.edu/people/Melchert/LUVLEX.pdf) and I. Yakubovich's annotated corpus of Luwian texts (http://web-corpora.net/LuwianCorpus/search/) are available online.

Collections of secondary bibliographies, along with the PDF files offered by the HPM, are made available by individual scholars and authors and as such, it is impossible to provide a full list. However, Melchert's website, listing his publications on Anatolian and other Indo-European Languages (http://www.linguistics.ucla.edu/people/Melchert/publications.html), the collection of materials in the database of the American School of Oriental Studies (http://www.asor.org/), and scholars who upload their papers on the professional social-network Academia (www.academia.edu) should be mentioned.

Bibliographical lists on the Internet are frequently published on websites of individual projects, and again a complete list is virtually impossible, however, the University of Tübingen's *KeiBi* initiative is one of the largest (http://vergil.uni-tuebingen.de/keibi/).

Lists of digital resources and introductory materials to Anatolian Studies and to specific topics are also available on the Internet. The Italian web-guide on digital resources for the study of Mediterranean epigraphy offers materials about Anatolia at http://lila.sns.it/mnamon/. The website www. bmanuel.org, dedicated to many aspects of linguistics, also offers materials on Anatolian linguistics (a critical collection of theories on ergativity is available at http://www.bmanuel.org/courses/rizza2/relto2.htm).

3. Initiatives oriented to archaeology

As far as archeology is concerned, almost every excavation in Anatolia and every museum have websites that offer pictures as well as general and bibliographical information. Once again, the most exhaustive list of resources can be found on the HPM, in the Links section (http://www.hethport.uni-wuerzburg.de/HPM/linksextern.html). Among the others, the website of the German excavation in Ḥattuša (http://www.hattuscha.de/) is particularly good: available in three languages (English, German, and Turkish), it offers a rich collection of images and a virtual "tour" of the ancient

capital city of the Hittites (and of the rock sanctuary of Yazılıkaya). The Deutsches Archäologisches Institut (http:// www.dainst.org/it/) also provides the user with extensive databases, bibliographies, and collections of pictures of archaeological interest.

Finally, an interesting initiative is represented by the website, Monuments of the Hittites (http://www.hittitemonuments.com/), which contains pictures and information on the Hittite monuments and monumental hieroglyphic inscriptions from both the Bronze Age and the Iron Age; a map of the sites with epigraphic relevance is available at http://www. hittiteepigraphs.com/.

Every field in the Humanities needs to keep up with the new technologies and the speed that ideas and discoveries circulate nowadays. Hittitologists have taken this task very seriously, and the result is a strong net of resources that accompany the work of the new generations of students and scholars. One cannot help but wish that this positive and enriching trend will continue, and that new projects will be created in order to promote the interaction between IT technologies and Anatolian Studies.

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WEB-BASED RESOURCES IN THE FIELD OF OLD TESTAMENT STUDIES

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Digitization had a great impact on Biblical studies, especially since the introduction of professional, commercial software, like Logos Bible Software (1991), Bibleworks (1992), and Accordance (1994). More than twenty years later it can be concluded that for most scholars the benefits were primarily the digitization of the familiar resources and the familiar tools. This helped to save physical space (complete libraries on a harddisk), to speed up the searching in primary sources (more flexible concordances) and secondary literature, and to produce more easily texts with quotations in the languages of the Bible and its early translations. Only more recently one may note a broader interest in the efforts, which was until then done by a few pioneers, to seriously investigate the possibilities of new methods. Instead of only digitizing the old tools scholars are experimenting with new digital tools.1) These are based on the digitized resources and they for their part also have impact on the way the familiar resources are digitized.

Two recently published volumes offer a good survey of what is going on in this field. The first is based on a congress in Amsterdam in 2008 titled 'Text Comparison and Digital Creativity. An International Colloquium on the Co-production

of Presence and Meaning'.2) This meeting evolved out of the projects of 'The Virtual Knowledge Studio for the Humanities and Social Sciences'3) and 'Turgama', a research project at the Institute for Religious Studies of Leiden University on computer-assisted analysis of the Peshitta and the Targum. 4) The congress volume contains a number of methodological considerations and some case studies in the field of linguistics and concerning the digitization of manuscripts. The second volume is the product of a research group of the European Association of Biblical Studies called 'Digital Humanities in Biblical Studies, Early Jewish and Christian Studies'5) and contains a number of examples of the new ways in which modern scholars work with digitized editions of ancient texts. 6) In the introductory article to this volume Claire Clivaz expresses the hope 'that we can use digital resources as tools with which to develop a better, clearer, and deeper understanding of human products'. She presents the volume as 'a showroom of what is at stake in digital streams in biblical studies, early Jewish and early Christian studies. The changes are not only irreversible, but probably greater than many scholars acknowledge, even if they do not consider either themselves or the peers to be digital humanists, or doing anything fundamentally different from their predecessors'.

A good example of the efforts to realize a change from digitized to digital tools is the project Shebanq (System for HEBrew text: ANnotations for Queries and markup). The aim of this project is to make it possible to save queries on a linguistic database of the Hebrew text of the Old Testament into the public domain, so that researchers can cite results in publications.8) Compared to the work with the common concordances of Biblical texts this can be seen as an interesting attempt to attain a deepening of insight into the text of the Old Testament.

This is not the place to pursue these methodological aspects, but it is certainly something that has impact on the following survey of web-based resources. What can and will be offered here is no more than a selection of the flood of material that can be found on the internet. The emphasis will be on quality and on innovation. It is difficult to present this survey on the basis of a simple and clear classification of the different parts of the field of Old Testament studies. One can see this as a positive aspect of the internet: it crosses old borders and helps the scholars to make new associations. No matter which categories we choose, there will always be overlaps. Many websites can be mentioned in more than one category. We will start with what everyone who is searching the internet needs: the right portals. In fact, almost every website is some kind of portal, because most of them refer in their turn to other websites. The next category will be the websites specifically aimed at presenting the biblical text,

¹) Cf. Wido van Peursen, 'Is the Bible losing its covers? Conceptualization and use of the Bible on the threshold of the Digital Order', *Hiphil Novum* 1/1 (2014), 44-58 (http://www.hiphil.org/index.php/hiphil/article/ view/53).

²) Wido van Peursen, Ernst D. Thoutenhoofd, Adriaan van der Weel (eds), Text Comparison and Digital Creativity: The Production of Presence and Meaning in Digital Text Scholarship, Brill: Leiden 2010.

http://virtualknowledgestudio.nl/.

http://www.hum.leiden.edu/religion/research/research-programmes/ antiquity/turgama.html.

⁵⁾ http://www.eabs.net/site/research-groups/general/digital-humanities-in-biblical-studies-early-jewish-and-christian-studies/.

C. Clivaz, A. Gregory, D. Hamidovic (eds), Digital Humanities in Biblical, Early Jewish and Early Christian Studies (Scholarly Communication Series), Brill: Leiden 2014.

Clivaz, Digital Humanities, 7.

http://annotation-paradigm.readthedocs.org/en/latest/queries-as-annotations/history.html.