PaleoCore

A platform for geospatial data integration in paleoanthropology

paleocore.org

SAR 2016

MISSION

Integrate data across independent research projects.

Lomekwi
Turkana
Contrebandier
Dikika
Hadar
Combe Capelle
Fontechevade
Omo-Mursi
Laetoli
Great Divide Basin
Omo-Shungura
Mille-Logya

PaleoCore

Discovery

Synthesis

PeriodO 2016

WEB BASED DATA MANAGEMENT

Data Standards

Biodiversity Information Standards TDWG

METADATA Dublin Core® Metadata Initiative INNOVATION

Online Data Repository

Mobile Digital Data Collection

WEB BASED DATA MANAGEMENT

PaleoCore terms are based on existing standards:

Dublin Core

Darwin Core

Access to Biological Collections Data (ABCD)

PALEOCORE AND PERIODO

FLEXIBILITY

SPACE

FUZZINESS

SCALE

PeriodO 2016

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INTERNATIONAL CHRONOSTRATIGRAPHIC CHART

IUGS

www.stratigraphy.org

International Commission on Stratigraphy

v 2014/02

Eonothem / Eon	Erathem / Era	System / Period	Series / Epoch	Stage / Age	GSSP	numerical age (Ma)
Phanerozoic	Cenozoic	Quaternary	Holocene			present
			Pleistocene	Upper		0.0117
				Middle		0.126
				Calabrian		0.781
				Gelasian		1.80
		Neogene	Pliocene	Piacenzian		2.58
				Zanclean		3.600
			Miocene	Messinian		5.333
				Tortonian		7.246
				Serravallian		11.62
				Langhian		13.82
				Burdigalian		15.97
				Aquitanian		20.44
		Paleogene	Oligocene	Chattian		23.03
				Rupelian		28.1
			Eocene	Priabonian		33.9
				Bartonian		38.0
				Lutetian		41.3
				Ypresian		47.8
			Paleocene	Thanetian		56.0
				Selandian		59.2
				Danian		61.6
	Mesozoic	Cretaceous	Upper	Maastrichtian		66.0
				Campanian		72.1 ±0.2
				Santonian		83.6 ±0.2
				Coniacian		86.3 ±0.5
				Turonian		89.8 ±0.3
				Cenomanian		93.9
			Lower	Albian		100.5
				Aptian		~ 113.0
				Barremian		~ 125.0
				Hauterivian		~ 129.4
				Valanginian		~ 132.9
				Berriasian		~ 139.8
						~ 145.0

Eonothem / Eon	Erathem / Era	System / Period	Series / Epoch	Stage / Age	GSSP	numerical age (Ma)
Phanerozoic	Mesozoic	Jurassic	Upper	Tithonian		~ 145.0
				Kimmeridgian		152.1 ±0.9
				Oxfordian		157.3 ±1.0
			Middle	Callovian		163.5 ±1.0
				Bathonian		166.1 ±1.2
				Bajocian		168.3 ±1.3
				Aalenian		170.3 ±1.4
			Lower	Toarcian		174.1 ±1.0
				Pliensbachian		182.7 ±0.7
				Sinemurian		190.8 ±1.0
				Hettangian		199.3 ±0.3
		Triassic	Upper	Rhaetian		201.3 ±0.2
				Norian		~ 208.5
				Carnian		~ 227
			Middle	Ladinian		~ 237
				Anisian		~ 242
			Lower	Olenekian		247.2
				Induan		251.2
	Paleozoic	Permian	Lopingian	Changhsingian		252.17 ±0.06
				Wuchiapingian		254.14 ±0.07
			Guadalupian	Capitanian		259.8 ±0.4
				Wordian		265.1 ±0.4
				Roadian		268.8 ±0.5
			Cisuralian	Kungurian		272.3 ±0.5
				Artinskian		283.5 ±0.6
				Sakmarian		290.1 ±0.26
				Asselian		295.0 ±0.18
		Carboniferous	Pennsylvanian	Gzhelian		298.9 ±0.15
				Kasimovian		303.7 ±0.1
			Middle	Moscovian		307.0 ±0.1
			Lower	Bashkirian		315.2 ±0.2
			Mississippian	Upper	Serpukhovian	323.2 ±0.4
			Middle	Visean		330.9 ±0.2
			Lower	Tournaisian		346.7 ±0.4
						358.9 ±0.4

Eonothem / Eon	Erathem / Era	System / Period	Series / Epoch	Stage / Age	GSSP	numerical age (Ma)
Phanerozoic	Paleozoic	Devonian	Upper	Famennian		358.9 ± 0.4
				Frasnian		372.2 ±1.6
			Middle	Givetian		382.7 ±1.6
				Eifelian		387.7 ±0.8
			Lower	Emsian		393.3 ±1.2
				Pragian		407.6 ±2.6
				Lochkovian		410.8 ±2.8
		Silurian	Pridoli			419.2 ±3.2
			Ludlow	Ludfordian		423.0 ±2.3
				Gorstian		425.6 ±0.9
			Wenlock	Homerian		427.4 ±0.5
				Sheinwoodian		430.5 ±0.7
			Llandovery	Telychian		433.4 ±0.8
				Aeronian		438.5 ±1.1
				Rhuddanian		440.8 ±1.2
		Ordovician	Upper	Hirnantian		443.4 ±1.5
				Katian		445.2 ±1.4
				Sandbian		453.0 ±0.7
			Middle	Darriwilian		458.4 ±0.9
				Dapingian		467.3 ±1.1
			Lower	Floian		470.0 ±1.4
				Tremadocian		477.7 ±1.4
		Cambrian	Furongian	*Stage 10*		485.4 ±1.9
				Jiangshanian		~ 489.5
				Paibian		~ 494
			Series 3	Guzhangian		~ 497
				Drumian		~ 500.5
				Stage 5		~ 504.5
			Series 2	*Stage 4*		~ 509
				Stage 3		~ 514
			Terreneuvian	*Stage 2*		~ 521
				Fortunian		~ 529
						541.0 ±1.0

Eonothem / Eon	Erathem / Era	System / Period	GSSP	GSSA	numerical age (Ma)
Precambrian	Proterozoic	Ediacaran			~ 541.0 ±1.0
					~ 635
		Cryogenian			
		Tonian			850
		Stenian			1000
		Ectasian			1200
		Calymmian			1400
		Statherian			1600
		Orosirian			1800
		Rhyacian			2050
		Siderian			2300
					2500
	Archean	Neoarchean			2800
		Mesoarchean			3200
		Paleoarchean			3600
		Eoarchean			4000
		Hadean			~ 4600

Units of all ranks are in the process of being defined by Global Boundary Stratotype Section and Points (GSSP) for their lower boundaries, including those of the Archean and Proterozoic, long defined by Global Standard Stratigraphic Ages (GSSA). Charts and detailed information on ratified GSSPs are available at the website http://www.stratigraphy.org. The URL to this chart is found below.

Numerical ages are subject to revision and do not define units in the Phanerozoic and the Ediacaran; only GSSPs do. For boundaries in the Phanerozoic without ratified GSSPs or without constrained numerical ages, an approximate numerical age (~) is provided.

Numerical ages for all systems except Lower Pleistocene, Permian, Triassic, Cretaceous and Precambrian are taken from 'A Geologic Time Scale 2012' by Gradstein et al. (2012); those for the Lower Pleistocene, Permian, Triassic and Cretaceous were provided by the relevant ICS subcommissions.

Coloring follows the Commission for the Geological Map of the World (http://www.cgmw.org)

CCGM CGMW

Chart drafted by K.M. Cohen, S.C. Finney, P.L. Gibbard

To cite: Cohen, K.M., Finney, S.C., Gibbard, P.L. & Fan, J.-X. (2013; updated) The ICS International Chronostratigraphic Chart. Episodes 36: 199-204.

URL: http://www.stratigraphy.org/ICSchart/ChronostratChart2014-02.pdf

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Find

Geological Context

Time

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Mobile Devices

CentOS Linux

Remote Clients

Django
Web Application Server

PaleoCoreR
API for R Statistics

GeoServer
Web Feature/Map Server

PostgreSQL
PostGIS

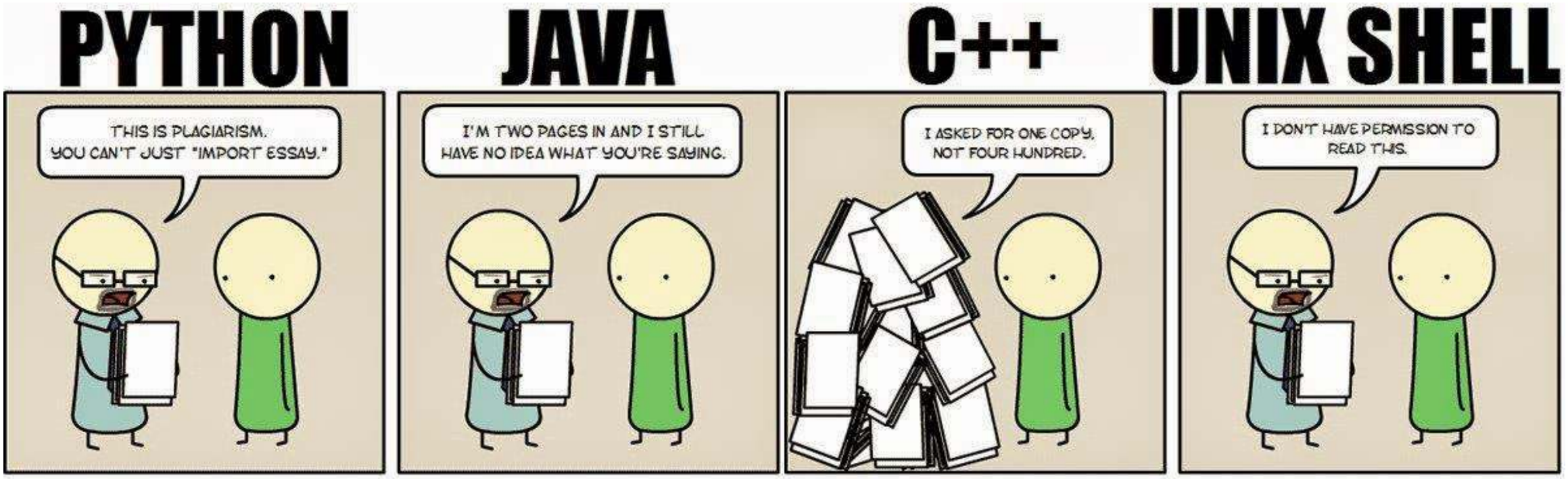
PaleoCore
Spatial
Database

PUBLICLY FUNDED AND OPEN SOURCE

- Built on Free Open-Source Software

- Source Code: github/paleocore

- Funding and support: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UNIX SHELL
I DON'T HAVE PERMISSION TO READ THIS.
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C
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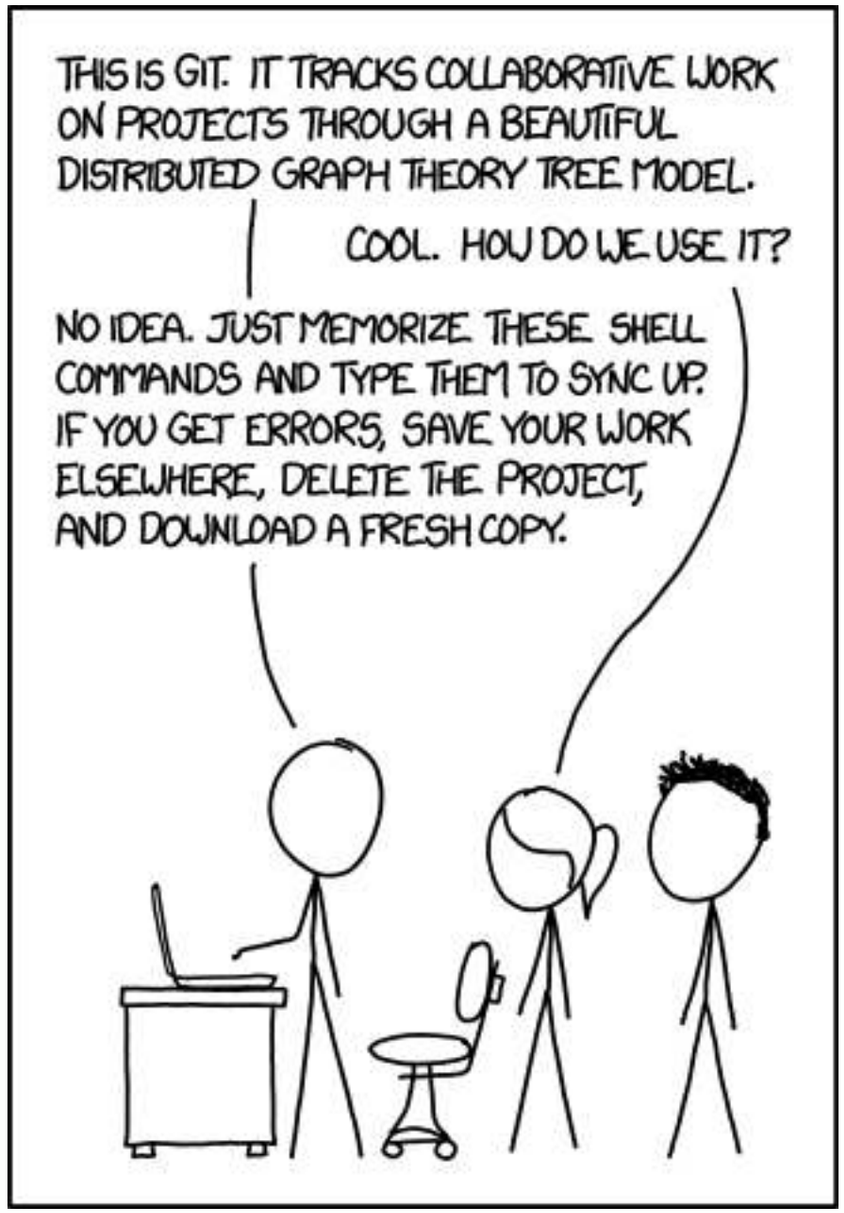
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