Straxferno
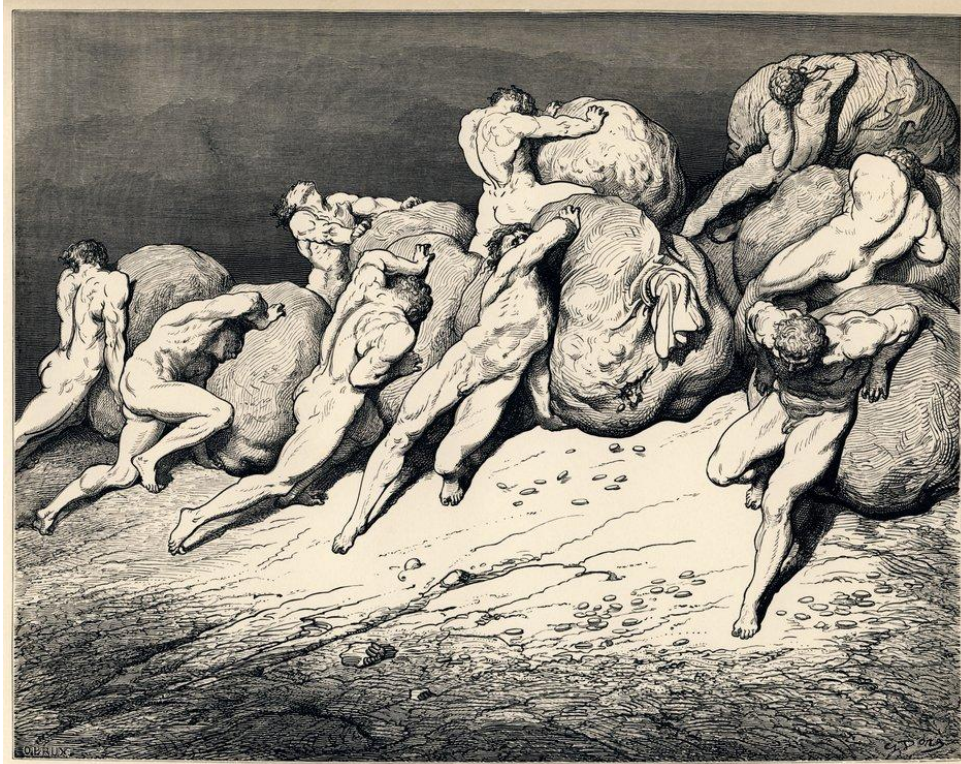
Circle 4: contexts, run selection, configuration

Today

Questions from last time
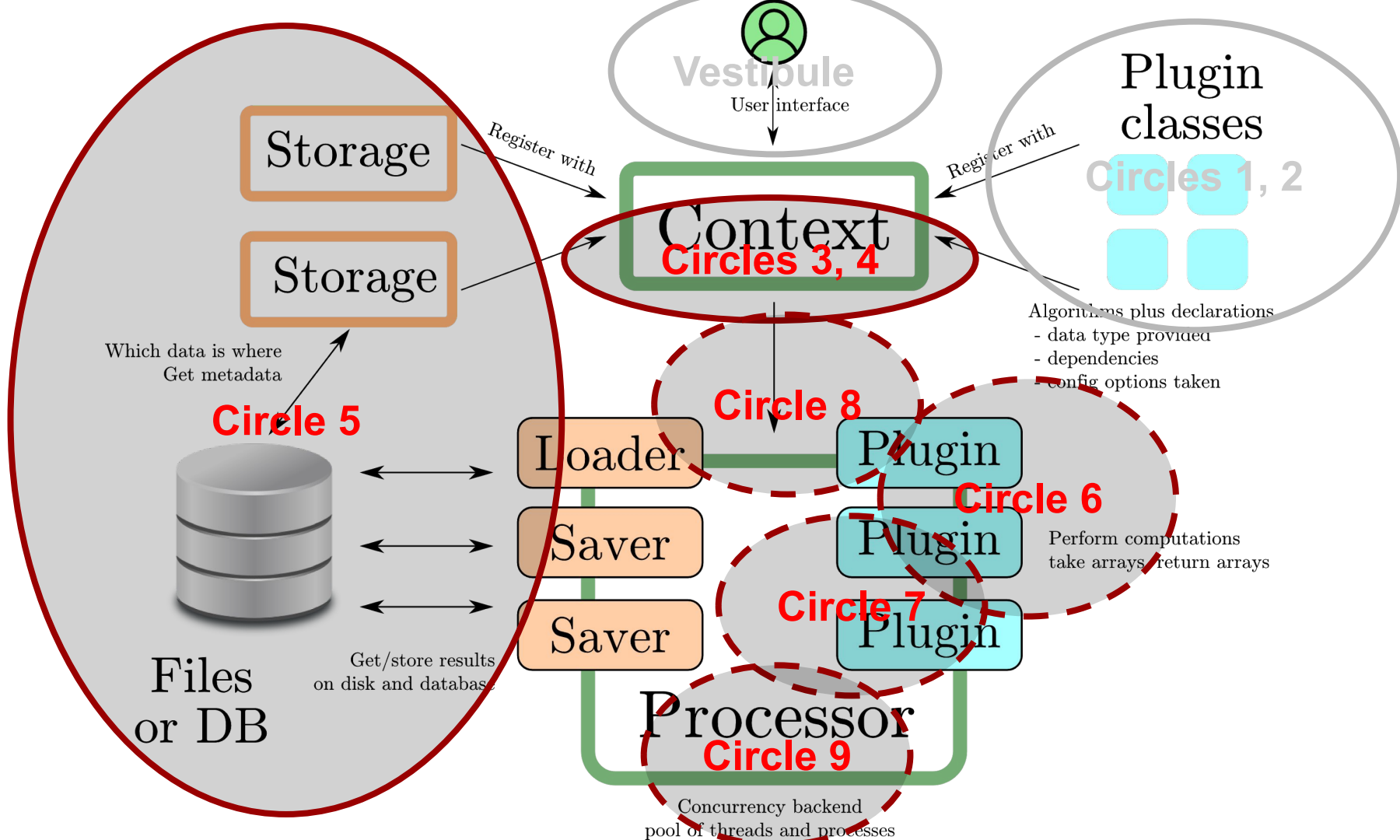
- Data loading
- Mini-analyses

Context overview

Questions / discussion

- Contexts
- Run selection
- Configuration

Preview of next week

Vestibule

User interface

Plugin classes

Circles 1, 2

Storage

Register with

Register with

Context

Circles 3, 4

Algorithms plus declarations
- data type provided
- dependencies
- config options taken

Storage

Which data is where
Get metadata

Circle 5

Circle 8

Plugin

Circle 6

Loader

Plugin

Perform computations
take arrays, return arrays

Saver

Circle 7

Get/store results
on disk and database

Plugin

Saver

Files
or DB

Processor

Circle 9

Concurrency backend
pool of threads and processes

Stored attributes / state

`.config`	Plugin configuration
`.context_config`	Context configuration
`.runs`	Cached runs info
`.storage`	Storage frontends
`._plugin_class_registry`	Registered plugins

Context changes

`.new_context`	… with different config etc.
`.set_config`	Modify plugin config
`.set_context_config`	Modify context config
`.register`	… new plugin
`.register_all`	… in a .py module

Main data

`.get_iter`	Iterate over data
`.make`	… silently
`.accumulate`	… and sum up things
`.get_array`	… and return numpy array
`.get_df`	… and return DataFrame
`.apply_selection`	, time, cuts, keep_columns

Metadata

`.run_metadata`	Run document
`.get_metadata`	Data-level metadata
`.estimate_run_start`	
`.size_mb`	
`.to_absolute_time_range`	

Storage probing

`.is_stored`	Do we have this data?
`.key_for`	Get DataKey for datatype
`.lineage`	Get lineage for datatype

Context probing

`.search_field`	Find data type by field
`.data_info`	List fields for data type
`.show_config`	For plugin or context

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