



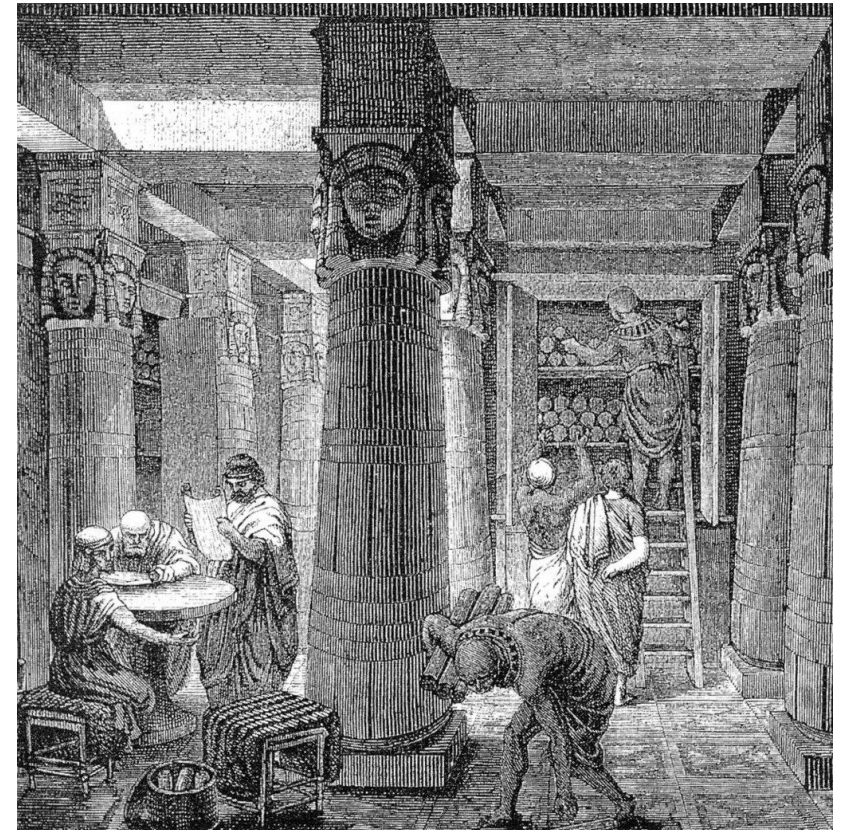
# Meson Build System Status

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# A Little History

- ▶ DPDK's "make" build system has been around since the pre-1.0 days
- ▶ Lacked any form of **dynamic** configuration
- ▶ Alternative build system based on "meson" & "ninja" introduced in 2017
- ▶ Preparing to deprecate the make build system



By O. Von Corven - Tolzmann, Don Heinrich, Alfred Hessel and Reuben Peiss.  
The Memory of Mankind. New Castle, DE: Oak Knoll Press, 2001,  
Public Domain, [Link](#)

# What's Done?

- ▶ Supports building all libraries
- ▶ Supports building all drivers
  - ▶ including pmdinfo support
- ▶ Supports building all (test) apps
- ▶ Supports building *almost* all examples
- ▶ Build HTML docs



# What Pieces are Missing?

- ▶ Build of PDF docs
- ▶ Checking of experimental tags
- ▶ Equivalent of “make tags”
- ▶ Additional documentation of system
- ▶ Potentially additional configurability\*



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# Open Question - Configurability

## Advantages

- ▶ Smaller builds
- ▶ Faster builds
- ▶ More targeted builds
- ▶ Easier package validation

## Disadvantages

- ▶ Each package may be different
- ▶ Code e.g. testpmd, needs `ifdefs` for whether library X is present or not
- ▶ Build system needs dependency tracking
- ▶ Build test matrix grows exponentially
  - ▶ ~40 libs and ~90 drivers could be disabled -  $2^{130}$  combinations!
- ▶ One DPDK ABI, or one ABI per lib?



# The Path Forward

- ▶ DPDK 19.11:
  - ▶ Mark “make” as deprecated
- ▶ DPDK 20.02:
  - ▶ Require confirmation to run make
- ▶ DPDK 20.05+
  - ▶ Remove make (if no missing functionality)



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# Discussion / Feedback

AND THANK YOU!