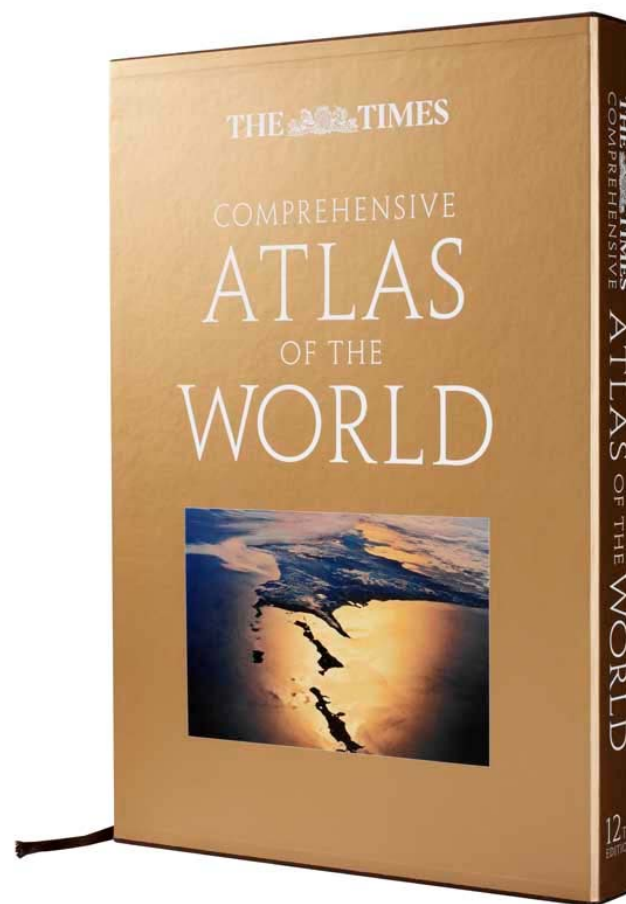


ESRI UC 2008 paper UC1762

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# ArcMap and “The Greatest Book on Earth”

Dr. Graham Gill  
Collins Bartholomew  
Cheltenham, UK



 **Collins Bartholomew**

 **HarperCollins Publishers**

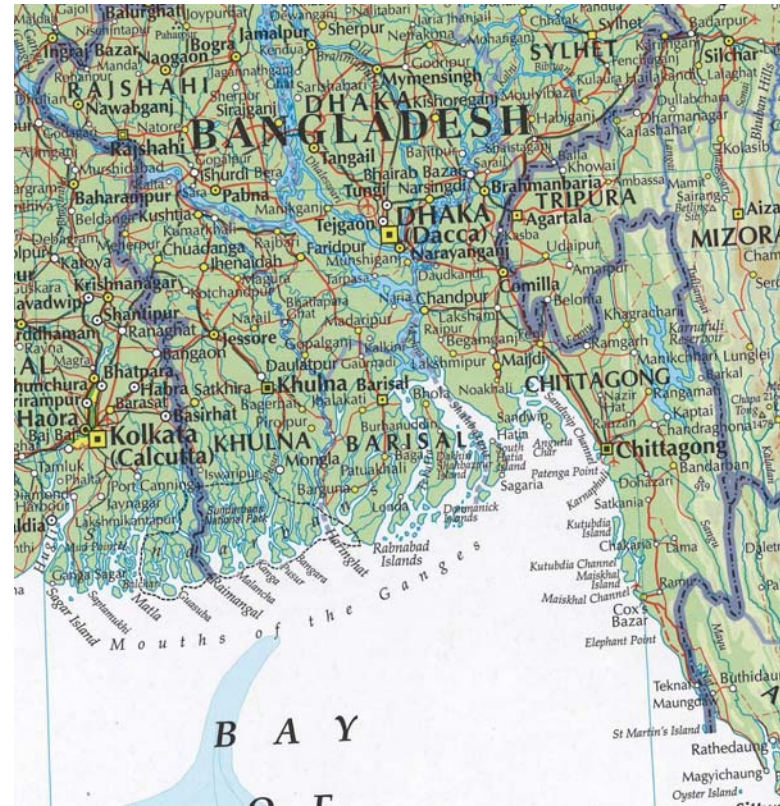
# Collins Bartholomew Map Data

- Bartholomew publishing maps since 1826, and compiling digital data since 1985
- Special Achievement in GIS Award winners at ESRI User Conference 2004
- Data compiled explicitly for the production of high-quality cartography
- Used in wide range of published maps & atlases under the Collins, Bartholomew, Nicholson and Times brands
- Used to generate vector, raster and gazetteer products under the Collins Bartholomew brand



# The Times Comprehensive Atlas of the World

- Bartholomew published their first atlas for Times in 1921
- The “Comprehensive” is the flagship product. First published 1967
- New twelfth edition produced 2007
- Described as “The greatest book on earth” (*Ranulph Fiennes*)
- Highly detailed cartography. A challenge for any origination technique



# Workload for the 12<sup>th</sup> Edition

The 12th edition includes

- additional plates
- 20,000 mapping updates
- 3,500 name changes
- over 200,000 place names
- data validated from over 500 organisations and experts





# An 'Ideal' Digital Workflow

- All map elements - especially graphics & text content - stored and manipulated together in one environment
- Database and (multiple) product symbolisations stored and manipulated together in one environment
- All cartographic production done in a georeferenced environment
- Data manipulation flexible, intuitive and fast
- Historically, workflows have not been able to deliver these objectives...

# Map Creation Workflow Timeline

Date	Graphics	Text
1985	Mapdata > Scitex	Films > scan > Scitex
1988	Mapdata > Arc/Info > Scitex	Films > scan > Scitex
1993	Arcedit > own routines > Illustrator	Illustrator
1996	Arcedit > Maplex > Illustrator	Geod/b > Maplex > Illustrator
<b>2003</b>	<b>ArcMap &gt; Maplex &gt; Illustrator</b>	<b>(Geod/b &gt; Maplex) &gt; Illustrator</b>
2008	ArcMap > ??	??

# Current Map Creation Method

Currently our final cartographic images are assembled & finished in Illustrator.

The advantages of this are:

- Well-established Illustrator export route from standalone Maplex
- Superior flexibility and performance in text editing
- Superior flexibility and performance in customising the map specification
- Better handling of graphic effects – overprints, text masks, curved texts etc.
- Established staff skill sets, including freelance outworkers
- No danger of accidentally editing the database when making product-specific edits
- Lower licensing costs

# Taking the Plunge with Annotation...

Our current production route will never meet our goals of integration.

So we're trialling the addition of annotation, publishable-quality symbolisation and representations to ArcMap

## ***Advantages:***

- Graphics & cartographic text manipulated in one consistent environment
- Enables full visualisation of final product in ArcMap
- Feature-linked annotations enable better integration of data revisions
- Final map is created in a georeferenced environment – advantages for indexing
- Avoids the need for overlapping Illustrator modules to enable atlas page extraction



# Taking the Plunge with Annotation...

## *Disadvantages*

- Reduction in name placement sophistication from standalone Maplex to Maplex extension
- Speed and flexibility??
- Issues with export routes from ArcMap:
  - AI: legacy, does not support Unicode
  - PDF: output text not fully editable

## *...and if we don't export?*

- Need to compromise on graphic effects – overprints, selective masks
- Just how does ArcMap score on flexibility and performance?

# Will ArcMap meet our Goals?

1. All map elements - especially graphics & text content - stored and manipulated together in one environment?

Yes, with feature-linked annotation, but with the loss of some graphic sophistication

2. Database and (multiple) product visualisations stored and manipulated together in one environment?

Yes, with representations

3. All cartographic production done in a georeferenced environment?

Yes

4. Data manipulation flexible, intuitive and fast.....?

We'll come back to you on that one...