# “Setting up a digitisation service in a week”.

## University Digitisation Service

Joe Arthur
Coordinator (UDS)

Ben Kreunen
Technical Support Officer

## Overview

- History
- What we do
- Technical development
- Show and tell
- Lessons learned
- Invitation to collaborate

## History

- 1970s : Record Services microfilm
- 2004 : Invoice scanning
- 2006 : Record Services incorporated in to University Library - refocus on Library collections
- 2010 : University Digitisation Service (UDS) formed and relocated to Bouverie St
- Who are UDS' clients?

## Site Selection

The big move

- State Library
- Architects
- Builder
- Removalists
- IT Department
- Vendors
- Clients

## Site Selection

- Development of specifications with SLV

## Equipment selection and acquisition

- Second hand ATIZ book copier redesigned
- A3 flatbed scanner
- Zeutschel OS14000, A1 600dpi

## Establishment & Progression

- Staff and equipment relocated to Bouverie St
- No disruption to financial imaging
- ‘Normal’ operation by week’s end
- Expansion of services & staff

# Engaging with staff & students

# Technical Development

Ben Kreunen,
Technical Support Officer

## Technical Development: Practical goals

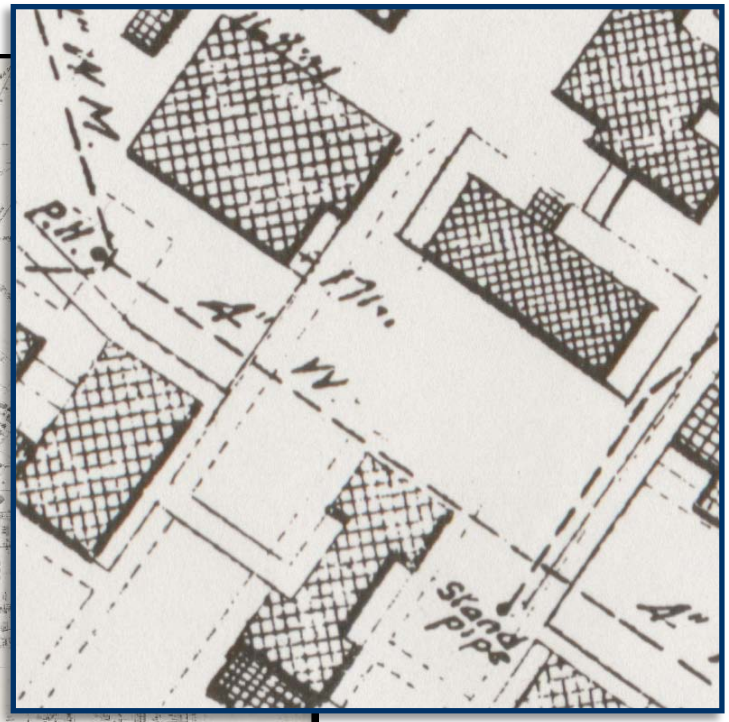
- Highest possible image quality
- Automate image processing
- Embed metadata in all files
- Integrate operations
- Operational flexibility
- Opportunity to think differently

## Technical Development

- Reconfiguration of ATIZ book copier
- Brief testing of Zeutschel OS14000
- Flatbed scanner workflow on paper only

## Technical Standards

- Same as everyone else BUT varied according to nature of material

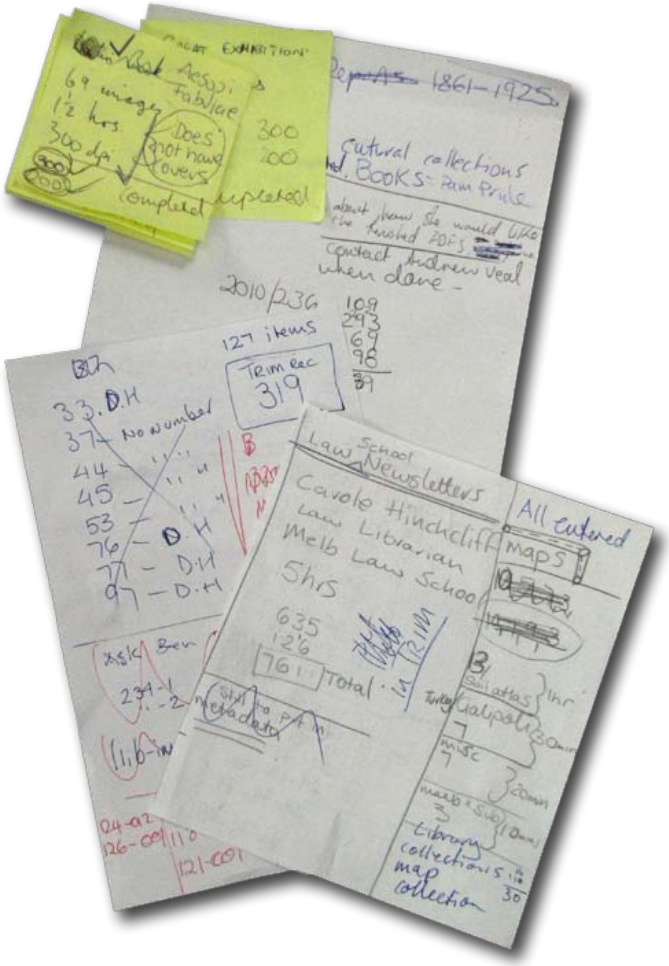


## Technical Standards

- Reflective illumination of illuminated manuscripts

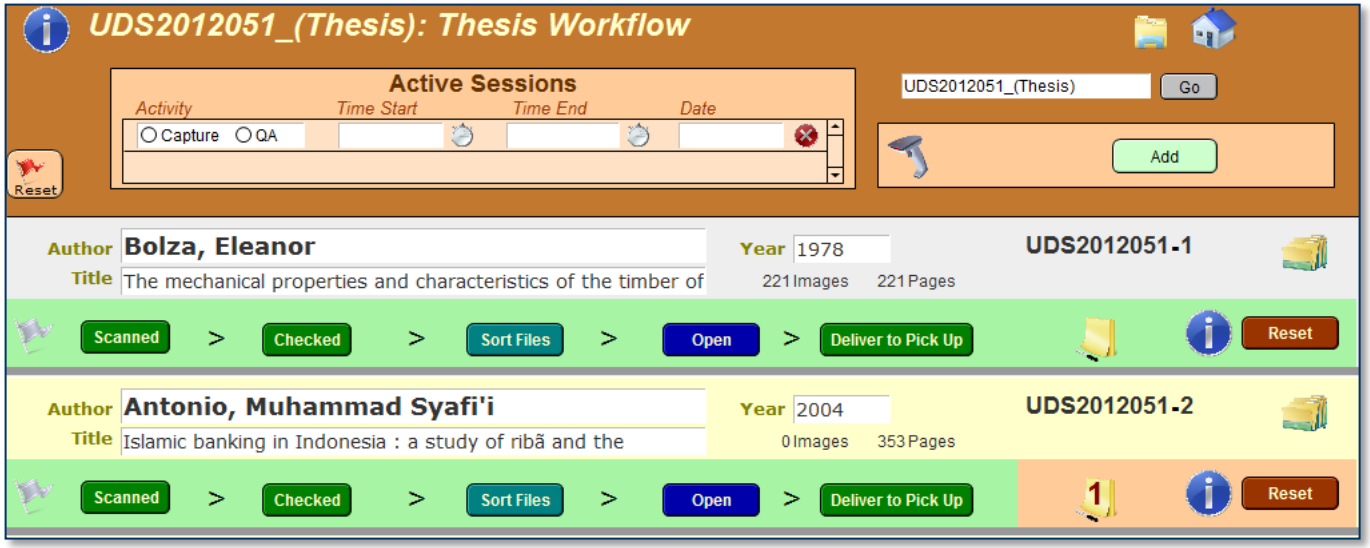
## Early Technical Development

- Existing workflows and skill set directly transferrable
- Scalability of workflows?
  - Streamline job tracking/ reporting
  - Job/file naming schema



## Early Technical Development

- Metadata writing tools (proof of concept)
- OCR service
- Relational database for data management
- Automated processing via command line apps



## Naïve Assumptions

1. Collecting metadata from the Library catalogue would be easy. Libraries have been doing this for ages.

   - Excel template for item lists
     - Wasted time
     - Reduced data quality
     - Frustrating for all concerned
   - Major rethink required
   - Many technical hurdles

## Naïve Assumptions

2. Archiving original scans is an upstream process done by someone else

   - Draft data packaging mechanisms extended for production use
   - Additional storage acquired (Noble Park data centre)
   - 2012 project – University Digital Preservation strategy

## Naïve Assumptions

3. Clients know how files will be delivered to end users

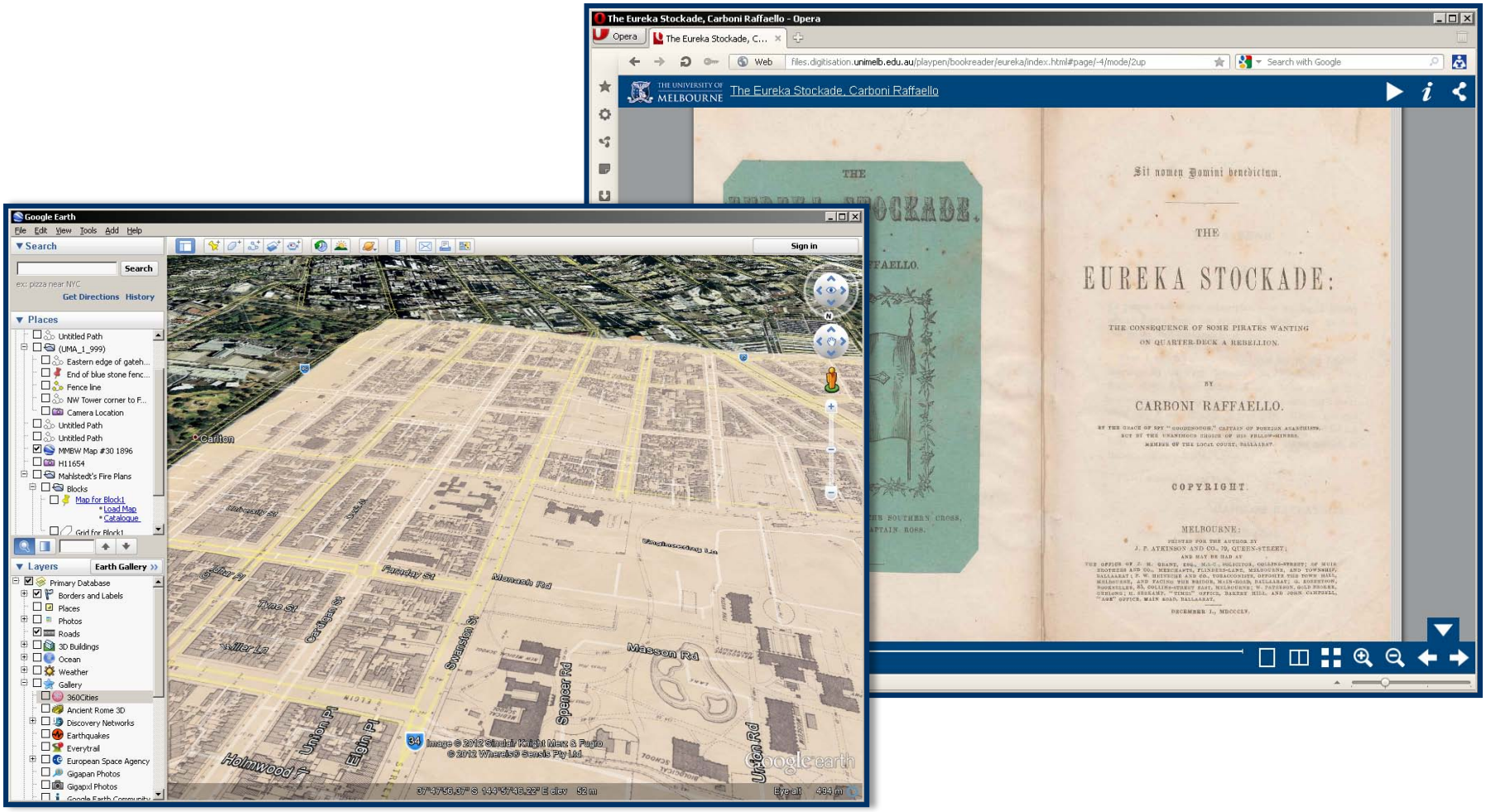
- Additional consultation with clients to help them determine requirements
- Demand for assistance with technical aspects of project management

## Diversity and complexity

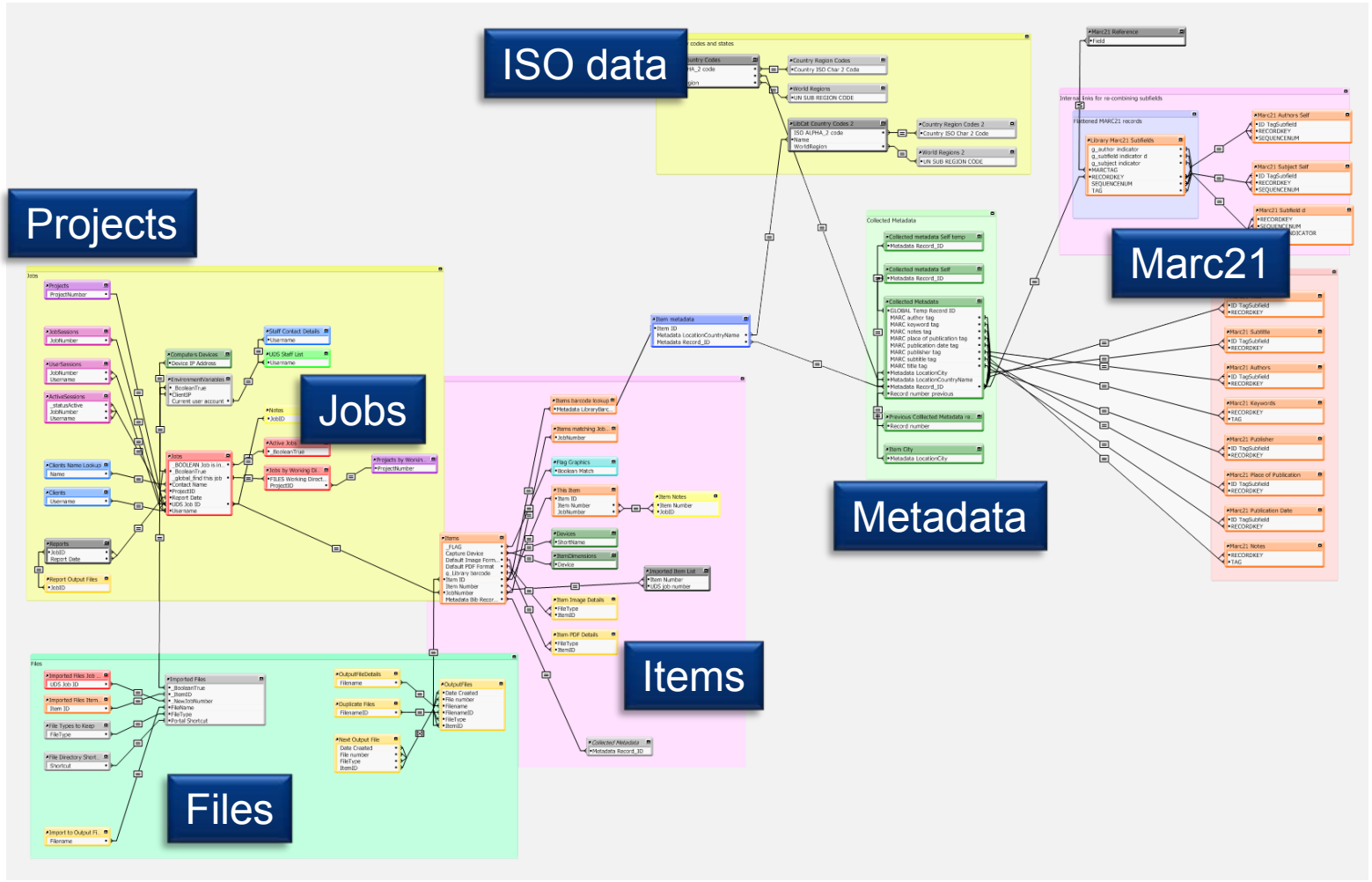
- The Library is not the only source of material
- The Library catalogue is not the only source of metadata
- The Library's digital repository is not the only destination
  - Brotherhood of St Laurence (DSpace)
  - UoM Archives (EMU)
  - CPA (Hive)
  - eScholarship Research Centre (OHRM)
  - "Un-managed" collections (custom file naming)
  - Open Library book reader
- Public delivery mechanisms not always known upon commencement

# Meeting the challenges: Adaptation

# Meeting the challenges: Delivery alternatives



# Meeting the challenges: Linking Items, files & metadata



# Meeting the challenges: Tools

## Meeting the challenges: Tools

- Facilitate the collection and sharing of metadata
- Spin off from our workflow management tools
  - list files and link to metadata
  - collect metadata from Library catalogue
  - facilitate manual data entry
  - embed metadata into files
- Other functions
  - file sorting and renaming
  - PDF segmentation
- Distributed as standalone runtime or native database

# Meeting the challenges: Metadata project

- Crosswalking MARC21 to XMP
  - Flatten and clean XML record
  - Reconstruct in human readable form
  - Map to XMP fields (DC, IPTC, PRISM)

# Meeting the challenges: Metadata project

- Links between barcode, recordkey and XML record ✓✓✓
  - Using barcode scanners to list items
- Invalid XML DTD workaround ✓✓
- HEX character code conversion (diactritics) ✓✓✓
- Data cleansing ✓✓
  - Annotations
  - Encoding errors
- XMP mapping ✓
- MARC21 subfield “reconstruction” ✓

## We are not librarians!

- limited sample of data quality issues to be addressed
- explore user-focussed presentation of catalogue metadata
- develop generic tools for collection managers and cataloguers
- embedding metadata is a best practise that is seldom practised

## Who's up for the challenge?

Australian War Memorial

THE UNIVERSITY OF MELBOURNE

# http://digitisation.unimelb.edu.au

A collection of images from the “Treasures Revealed” App

Android: http://go.unimelb.edu.au/97b

THE UNIVERSITY OF MELBOURNE

http://digitisation.unimelb.edu.au

iOS: http://go.unimelb.edu.au/k7b

Iesus annoꝝ duodecim, ascendens cũ parẽtib⁹ ierosolymã, discedentib⁹ et inscijs illis ubi remanerit, qui triduum eum quaerẽtes, filium tandẽ inuenerunt in medio doctoꝝ audientem, et eum stupore interrogantem eos. Luc. ij. Badler sculpsit Coloniae. M·D·LXXXII

THE UNIVERSITY OF MELBOURNE

http://digitisation.unimelb.edu.au

iOS: http://go.unimelb.edu.au/k7b

THE UNIVERSITY OF MELBOURNE

http://digitisation.unimelb.edu.au

Android: http://go.unimelb.edu.au/97b

THE UNIVERSITY OF MELBOURNE

http://digitisation.unimelb.edu.au

iOS: http://go.unimelb.edu.au/k7b

THE UNIVERSITY OF MELBOURNE

http://digitisation.unimelb.edu.au

re regum maacha cū ꝓle eius. Qui cū venissent castrametati sunt e regione medaba. Filij quoq; ammon congregati de urbibus suis uenerunt ad bellū. Quod cū audisset dauid: misit ioab ⁊ omnē exercitū uirorū fortiū. Egressiq; filij ammon: direxerunt aciem iuxta portā ciuitatis. Reges aūt qui ad auxilium eius uenerāt seperatim i agro steterūt. Igitur ioab intelligens bellū et aduersū et post tergū contra se fieri: elegit uiros fortissimos de uniuerso israhel-et perrexit cōtra syrum. Reliquā aūt partē ꝓli dedit sub manu abisai fratris sui: et perrexerunt contra filios ammon. Dixitq; Si uicerit me syrus auxilio eris michi: si aūt superauerint et filij ammon eo nobi in presidiū. Confortare et agamus uiriliter pro ꝓle nostro-et pro urbibus dei nostri. Dūs autem quod in conspectu suo bonū est faciat. Perrexit ergo ioab et populus qui cū eo erat contra syrum ad prelīū: ⁊ fugauit eos. Porro filij ammon uidentes q̄ fugissent syrus - ipi quoq; fugerunt-abisai fratrem eius: ⁊ ingressi sunt ciuitatē. Reuersusq; est cētā ioab in ierusalem. Videns aūt syrus q̄ corruisset coram israhel: misit nūcios- et adduxit syrum qui erat transfluuiū. Hophax autem princeps milicie adadezer erat dux eorū. Quod cū annunciatum esset dauid: congregauit uniuersum israhel-⁊ transiuit iordanē: ueniit q; in eros et direxit se aduersus aciem-illis contra pugnantibs. Fugit autem syrus israel. Et interfecit dauid de syris septem milia curruū et ꝺraginta milia peditum: ⁊ sophat principē. Videnres aūt hui adadezer se ab israhel esse superatos: transfugerunt ad dauid et seruierunt ei. Noluitq; ultra

Factum est aūt post annū circuli tempore quo solent reges ad bella procedere-congregauit ioab egregiam ⁊ robur milicie: ⁊ vastauit terā filiorū ammon. Perrexitq; et obsedit rabbā. Porro dauid manebat i ierusalem quādo ioab pcussit rabbā-et destruxit eam. Tulit aūt dauid coronā melchon de capite eius - et inuenit in ea auri pōdo talentū et ꝑciosissimas gēmas: ferrūq; sibi inde diadema. Ma nubibas quoq; urbis plurimas tulit: populum aūt qui erat in ea eduxit et posuit super eos mbulas-⁊ trahas-et ferrata carpentra transire: ita ut dilaceraretur ⁊ contereret. Sic fecit dauid cunctis urbibs filios ammon: ⁊ reuersus est cum omni populo suo in ierusalem. Post hec initum est bellum in gazer aduersum philistheos: in quo percussit sobochai oliathites saphā de genere raphaim ⁊ humiliauit eos. Aliud quoq; bellū gestū ē aduersus philistheos: in quo percussit adeodatus filius salatus bethlemites ferrē goliath gethei: cuius hastile ligni quasi liciatorii erat. Bellum. Bellum aūt et aliud factum est in geth: in quo fuit homo longissimus sanos habens digitos id est simul uiginti quatuor: qui ⁊ ipe de raphaim fuerat stirpe genitus. Hic blasphemauit israel: ⁊ percussit eū ionathan filius samaa fratris dauid. Hij fuit filij raphā i geth: q; ceciderūt in manu dauid et seruoꝝ eius.

Consurrexit aūt satan contra israhel: ⁊ incitauit dauid ut numeraret israhel. Dixitq; dauid ad ioab et ad principes populi. Ite et numerate israhel a bersabee usq; dan: et afferte michi numerum ut sciā. Respondit ioab. Augeat dūs populū

simum corruptū quā sunt. Nonne dñe mi rex-oēs fratres mei sunt? Quare hec querit dūs meus ꝺō in peccatū reputet israhel? Sed sermo regis magis preualuit. Egressusq; est ioab ⁊ circuiit uniuersum israel ⁊ reuersus est ierusalē. Deditq; dauid numerū eoꝝ quos circuierat: ⁊ inuentus est omnis numerus israhel mille milia ⁊ centum milia uirorū eductiuū gladiū. De iuda aūt quadringenta septuaginta milia bellatorum. Iam leui et beniamin nō numerauit: eo quod inuisus esset regi numerus regis imperiū. Displicuit aūt deo ꝺō iussum erat: ⁊ percussit israhel. Dixitq; dauid ad dūm-peccaui nimis ut hoc faceres. Obsecro autē iniquitatem serui tui: q̄a insipienter egi. Et locutus ē dominus ad gad uidentem dauid dicēs. Vade ⁊ loquere ad dauid-et dic ei. Hec dicit dūs. Tria tibi optionē do: unū ꝺō uolueris eligere ut faciā tibi. Cumq; uenisset gad ad dauid - dixit ei. Hec dicit dūs. Elige quod uolueris. Aut tres annos pestilentiā-aut tres mensibus fugere et hostes tuos et gladium eorum non posse euadere: aut tribus diebus gladiū domini ⁊ mortem uastare in terra-⁊ angelū dñi interficere in uniuersis finibs israhel. Nunc igitur uide quid respondeam ei qui misit me. Et dixit dauid ad gad. Et oīno parere mihi ꝙgustie ꝓximum. Sed melius michi est ut incidā in manus dñi quia multe sunt miserationes eius-quā i manus hominū. Misit ergo dominus pestilentiam in israhel: ⁊ ceciderunt de israhel septuaginta milia virorū. Misit quoq; angelū in ierusalem-ut deleret eam. Cumq; deleret - vidit dominus et misertus ē super magnitudine mali: imperauit angelo qui percutiebat. Sufficit

iam: cessa manus tua. Porro angelus domini stabat iuxta aream ornan iebusei: leuauitq; dauid oculos suos-vidit angelum dominū stantē inter celum ⁊ terram: ⁊ euaginatū gladium in manu eius-et uersum contra ierusalem: ⁊ cecidit tam ipe q̄ maiores natu uestiti cilicijs prosti i terram. Dixitq; dauid ad dum. Nonne ego sum qui iussi ut numerarentur ꝓle? Ego ē q̄ peccaui: ego q̄ malū feci. Iste grex q̄d commeruit? Domine deus meus uertatur obsecro manus tua in me-et in domum patris mei: ꝓle aūt tuus nō periatur. Angelus aūt domini precepit gad ut diceret dauid: ut ascenderet erigeretq; altare domino do i area ornan iebusei. Ascendit ergo dauid iuxta sermonem gad: quē locutus fuerat ex nomine dūi. Porro ornan cum suspexisset ⁊ uidisset angelū quatuorq; filij eius cum eo: absconderunt se. Nam eo tempore metebant i area tritici. Igitur cum uenisset dauid ad ornan aspexit eum ornan: et processit ei obuiam de area ⁊ adorauit cū pcubitu in terrā. Dixitq; ei dauid. Da mihi locum aree aut-ut edificem in ea altare dūo ita ut quantū valet argentū accipias: ⁊ cesset plaga a populo. Dixit aūt ornan ad dauid. Tolle ⁊ faciat dominꝰ meus rex quodcunq; ei placet Sed ⁊ boues do in holocaustū et tribulas in ligna: ⁊ triticum in sacrificiū: omnia libens prebeo. Dixitq; ei rex dauid. Nequaq̄ ita fiet: sed argentū dabo quantū valet. Nec enim tibi auferre debeo: ⁊ sic offerre dño holocausta gratuita. Dedit ergo dauid ornan pro loco siclos auri sexcentos pondēris regentos: ⁊ edificauit ibi altare domino: obtulitq; holocausta ⁊ pacifica:

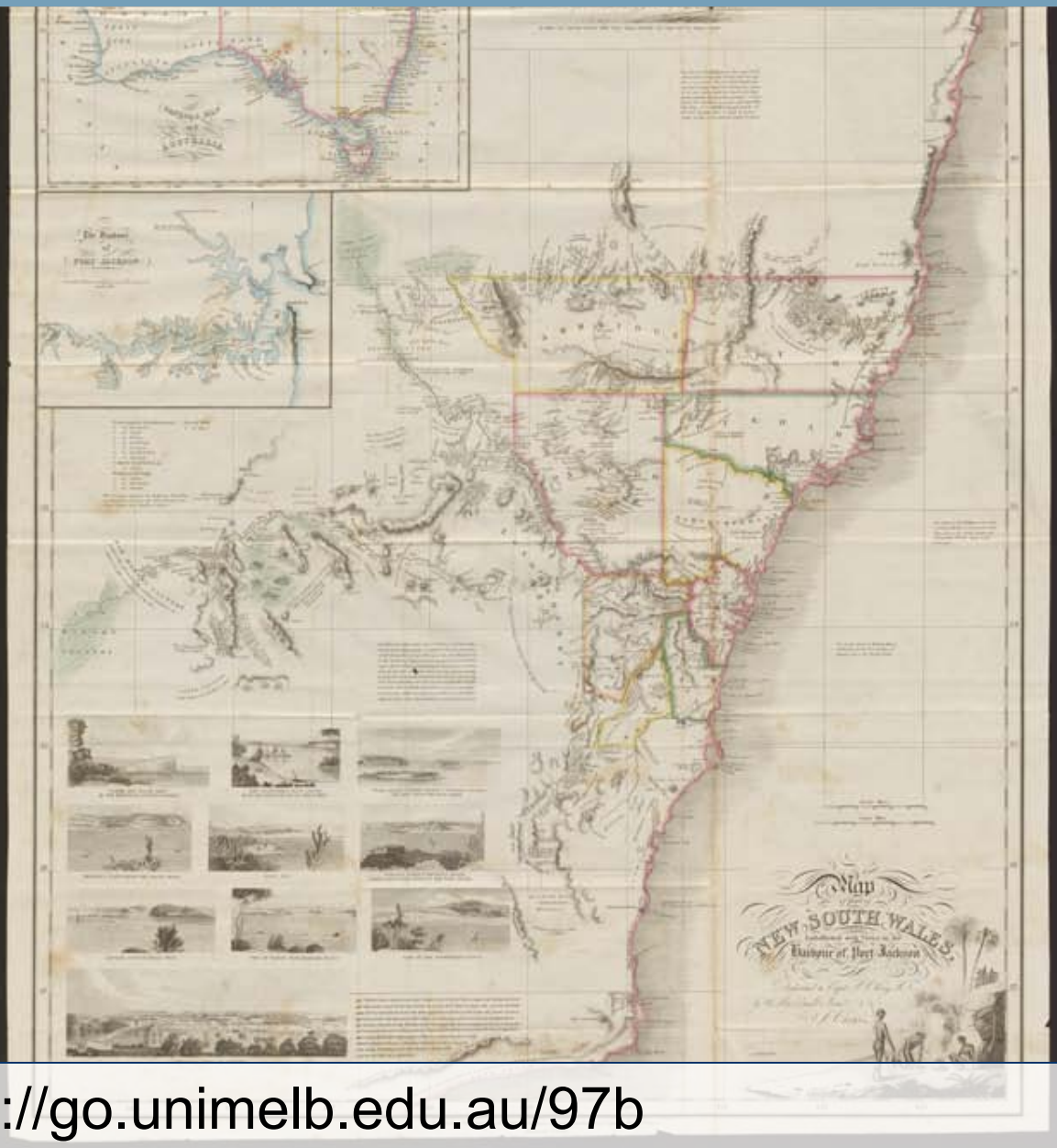
Android: http://go.unimelb.edu.au/97b

o eius. Qui cū
sunt e regione
nmon congre=
erunt ad bellū

furia auxiliū p
adum e
eo temp
bella procede

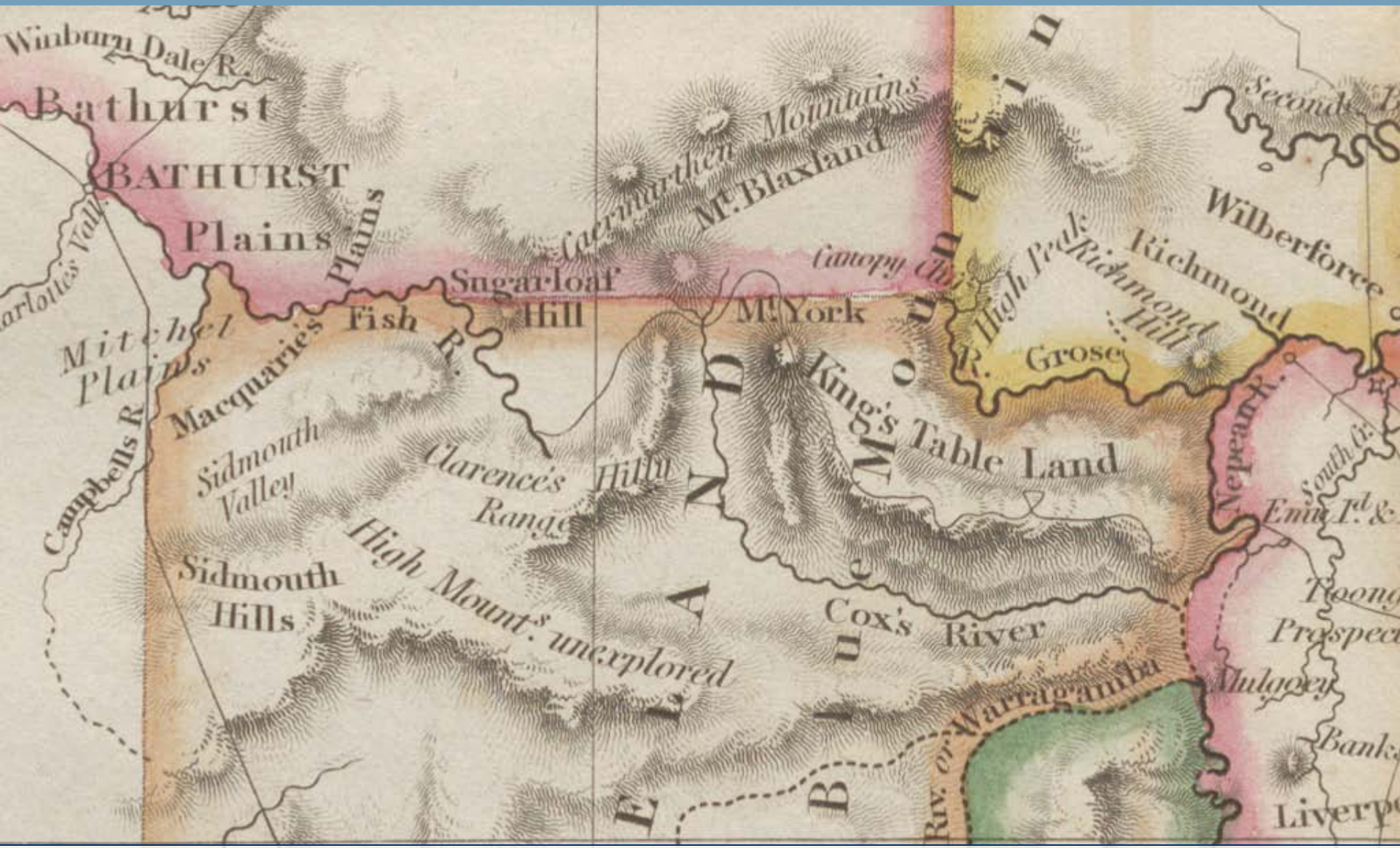
THE UNIVERSITY OF MELBOURNE

http://digitisation.unimelb.edu.au



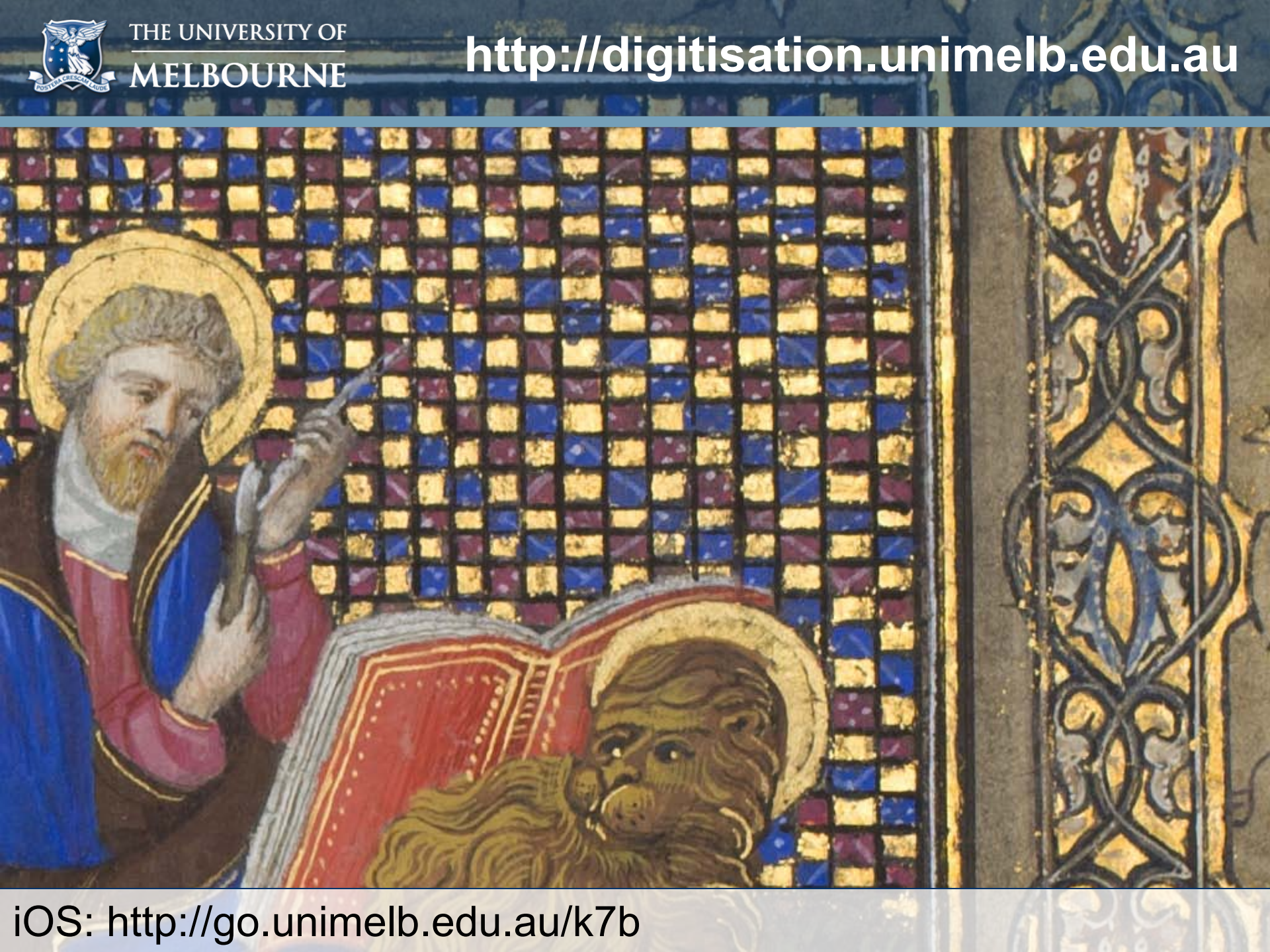

Android: http://go.unimelb.edu.au/97b

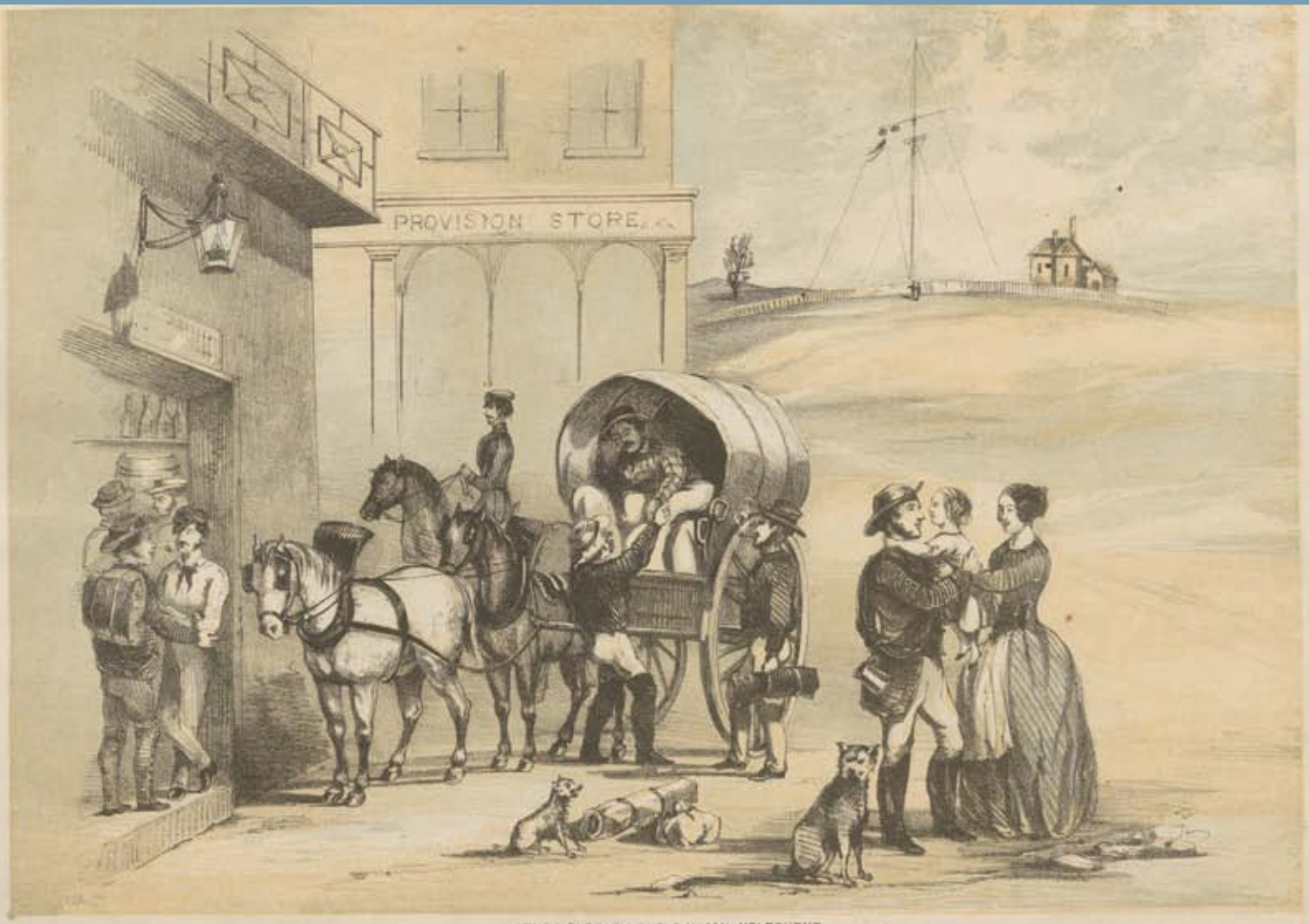
THE UNIVERSITY OF MELBOURNE
http://digitisation.unimelb.edu.au




iOS: http://go.unimelb.edu.au/k7b

Blue Bellied Parrot


THE UNIVERSITY OF
MELBOURNE
http://digitisation.unimelb.edu.au
iOS: http://go.unimelb.edu.au/k7b




LITH.ª & PUB.ª BY CYRUS MASON, MELBOURNE.

Off to the Diggings.

THE UNIVERSITY OF MELBOURNE

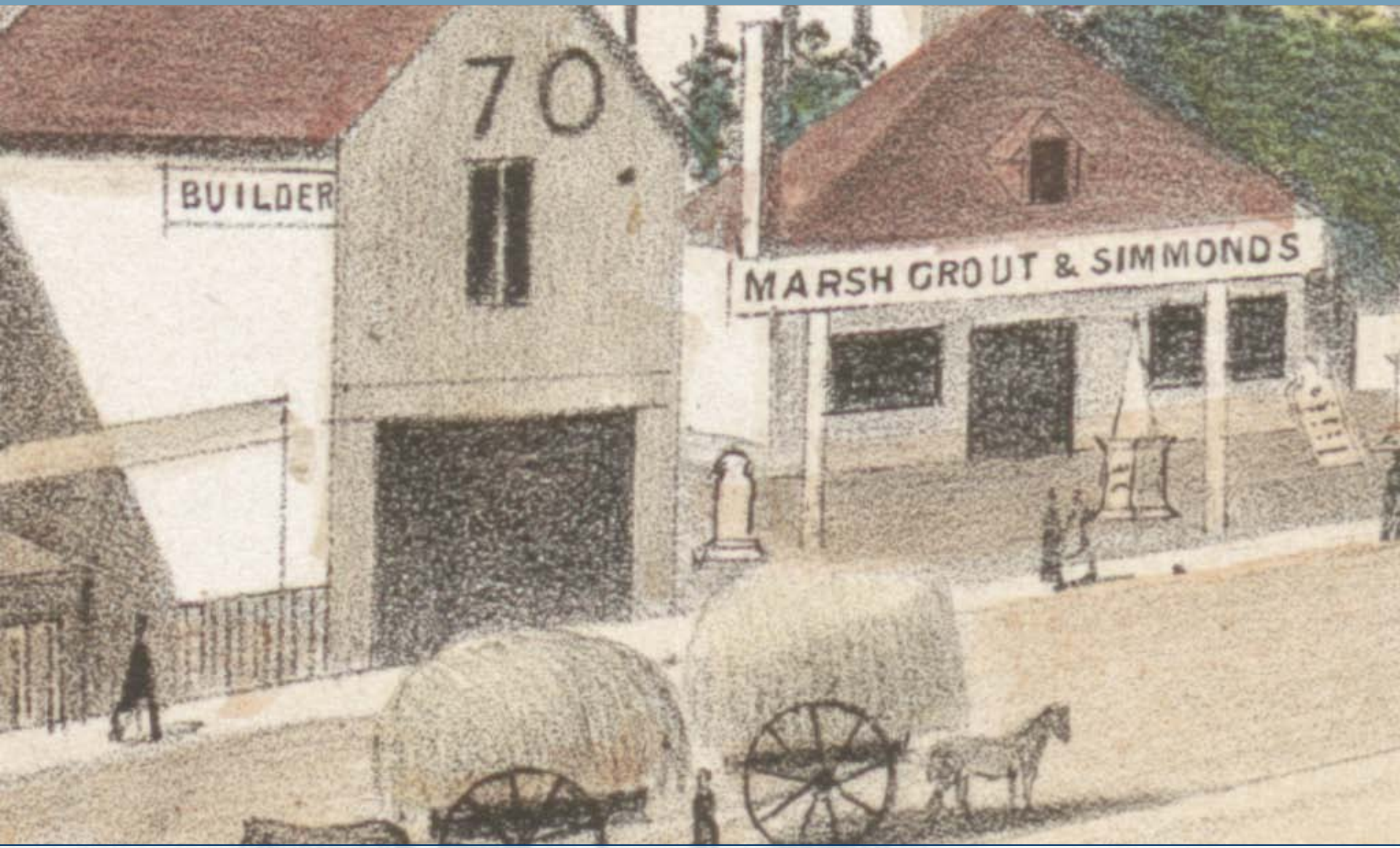
http://digitisation.unimelb.edu.au

iOS: http://go.unimelb.edu.au/k7b

THE EASTERN MARKET

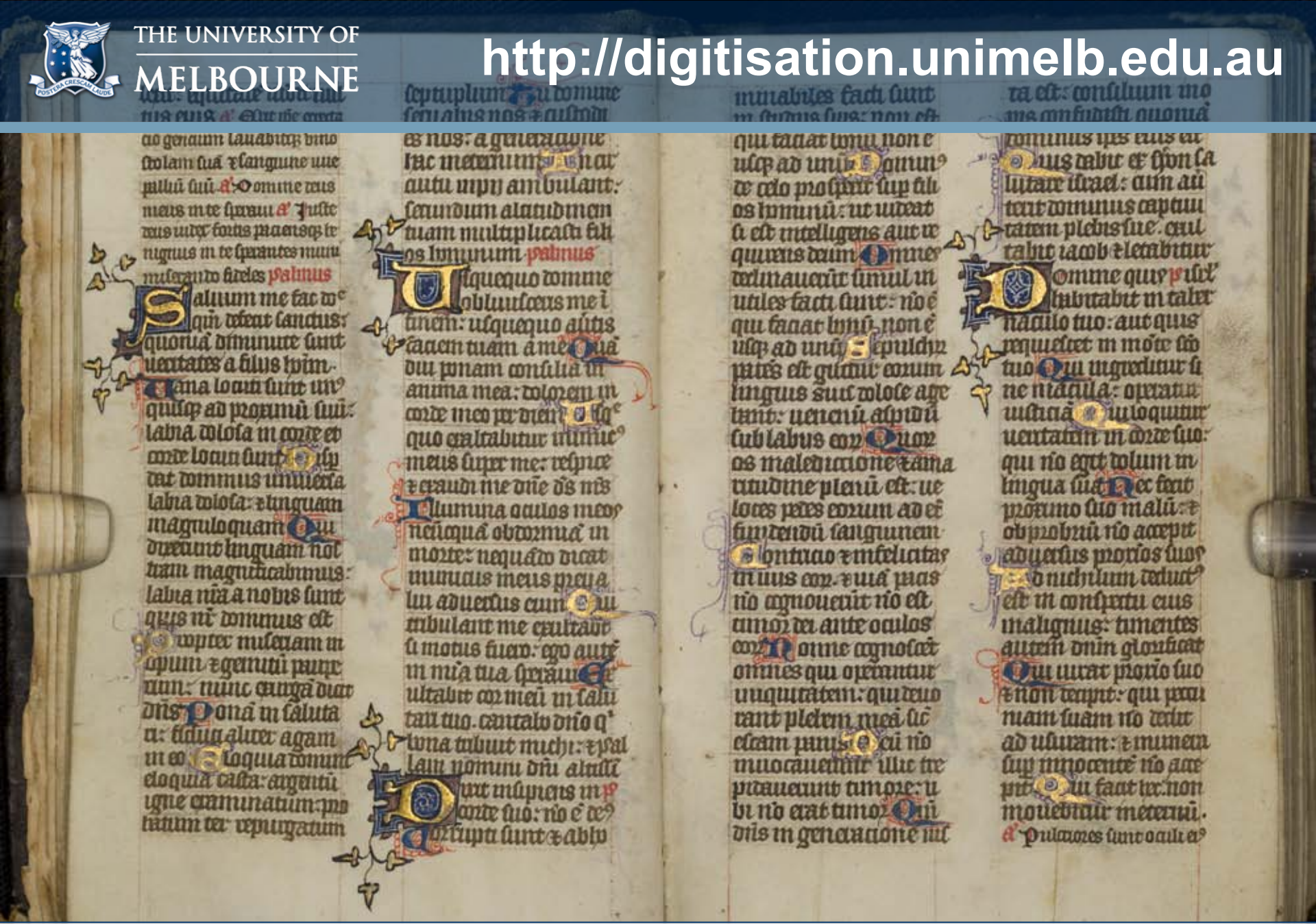
THE UNIVERSITY OF MELBOURNE

http://digitisation.unimelb.edu.au




iOS: http://go.unimelb.edu.au/k7b

THE UNIVERSITY OF MELBOURNE
http://digitisation.unimelb.edu.au



Android: http://go.unimelb.edu.au/97b