

RIVER TRANSPORT 1189 – 1600

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UNIVERSITY OF SUSSEX**DOUGLAS JOHN MORRIS CAFFYN. DOCTOR OF PHILOSOPHY****RIVER TRANSPORT 1189 - 1600****SUMMARY**

The purpose of this thesis is to establish the extent of river transportation in the period 1189 - 1600. Investigation is made as to which rivers were physically usable, which were legally usable and the comparative cost of land and river transport. The evidence of historic use is examined and these records are compared with the recent limits of use of the rivers. Hence an estimate is made as to which sections of rivers were probably used during that period.

The principles of fluvial geomorphology have been used to estimate past channel changes. The legal records have been studied and analysed. Considerable evidence of the use of rivers has been found which materially increases the lengths of rivers for which there are records of historic use.

It is concluded that:-

1. all rivers which were physically usable were legally usable,
2. there is a high probability that each section of a river which is now physically usable was usable by small boats in the period 1189-1600,
3. on the balance of probabilities each section of a river which is now physically usable was used during that period.

Finally the implication of this research for the present day law relating to public access on rivers is considered.

Certificate relating to Work submitted elsewhere for Examination

D.J.M. Caffyn. River Transport 1189 – 1600.

I hereby declare that this thesis has not been and will not be, submitted in whole or in part to another University for the award of any other degree.

However this thesis includes at Appendix D a list of Rivers made navigable by Act of Parliament. This is a corrected and reworded version of Appendix A of a Dissertation for the Degree of Master of Laws by Research at Kent Law School, the University of Kent, submitted in August 2004.

Appendix E includes a summary of the statutes for removing weirs and other obstructions from rivers. This material was also formed part of Section 2.6 of the above mentioned thesis.

..... D.J.M. Caffyn.

..... Date.

CONTENTS**Part 1 Introduction**

Chapter 1.1	Aim and Previous Research	1
1.1.1.	Aim	1
1.1.2.	Previous Research	2
Chapter 1.2	Boundaries, Dates and Definitions	6
1.2.1	Boundaries	6
1.2.2	Dates	6
1.2.3	Definitions	7
Chapter 1.3	Organisation of the thesis	11

Part 2 The Physical Usability of Rivers

Chapter 2.1	Introduction	13
2.1.1	Historic change	13
2.1.2	Qualities required for a river to be physically usable	17
Chapter 2.2	Conditions for present use	20
Chapter 2.3	Discharge and Usability	24
2.3.1	Introduction	24
2.3.2	Records of variation in discharge	25
2.3.3	The relationship between Precipitation and Discharge	28
2.3.4	Discharge and Usability	30
2.3.5	Abstraction	33
2.3.6	Land use change	36
2.3.7	Groundwater Flow and Drainage	37
2.3.8	Minimum discharge at mills	41
2.3.9	Summary	42
Chapter 2.4	Anthropogenic Modification of River Form and Usability	43
2.4.1	Introduction	43
2.4.2	Shortening a channel	44
2.4.3	Widening a channel	47
2.4.4	Dredging	49
2.4.5	Cutting in-stream vegetation	50
2.4.6	Bank vegetation	53

2.4.7	Aggradation and Degradation	53
2.4.8	Medieval hydrology	55
2.4.9	Summary	57
Chapter 2.5	Channel Pattern and Usability	58
2.5.1	Braided river	58
2.5.2	Multi-channel rivers	63
2.5.3	Rivers with pool and riffle form	66
2.5.4	Summary	69
Chapter 2.6.	Ponded Rivers and Meres	70
2.6.1	Introduction	70
2.6.2	River Till and the Foss Dyke	73
2.6.3	River Hull	73
2.6.4	River Ancholme	74
2.6.5	River Witham downstream of Lincoln	75
2.6.6	River Glen	76
2.6.7	River Nene	77
2.6.8	River Cam	78
2.6.9	River Ant	79
2.6.10	River Hartlake	80
2.6.11	Summary	80
Chapter 2.7	Usability from Source	82
Chapter 2.8	Conclusion	91

Part 3 Legal and Customary Usability

Chapter 3.1	Theoretical Models of the Creation of Rights of Passage	94
3.1.1	Introduction	94
3.1.2	Right of passage before people	95
3.1.3	People before any right of passage	96
3.1.4	Enclosure	98
Chapter 3.2	The Law of Trespass	100
3.2.1	Introduction	100
3.2.2	Types of trespass	101
3.2.3	The ancient law of trespass	102
3.2.4	Blackstone	104

3.2.5	How the law changed	105
3.2.6	Statutes and Law Reports	107
3.2.7	Legislation and Commissions	112
3.2.8	Rights <i>in principio</i>	113

Part 4 Use

Chapter 4.1	The importance of the use of rivers	114
4.1.1	Introduction	114
4.1.2	The amount of goods moved	114
4.1.3	The proportion of goods moved by river	117
4.1.4	Canals	119
4.1.5	Royal support for river transport	120
4.1.6	Location	122
4.1.7	Cost	124
Chapter 4.2	Archaeological evidence of use	130
4.2.1	Introduction	130
4.2.2	Boats and Barges	131
4.2.3	Lost loads	132
4.2.4	Wharfs	133
4.2.5	Weirs and Fishtraps	135
4.2.6	Transport of stone	135
4.2.7	Transport of pottery	137
4.2.8	Transport of timber and wood	138
Chapter 4.3	Written Evidence of Use	141
4.3.1	Introduction	141
4.3.2	The Royal Rolls	142
4.3.3	Accounts	143
4.3.4	Eyres and Inquests	144
4.3.5	Law Reports	145
4.3.6	Records of Tolls	145
4.3.7	Maps	146
4.3.8	The limit of upstream use of rivers	147
4.3.9	Place-Name Evidence	148
4.3.10	Recreation	148
4.3.11	The Quality of the Evidence	149

Chapter 4.4	Records of Historic Use by Regions	151
4.4.1	Introduction	151
4.4.2	Evidence of Use by Regions	152
4.4.3	Observer Bias	158
4.4.4.	Conclusion	160
Chapter 4.5	Particular Rivers	161
4.5.1	Introduction	161
4.5.2	Disuse of the Middle Thames	161
4.5.3	Kentish Stour	166
4.5.4	River Wear	170
4.5.5	River Teme	171
4.5.6	Salisbury Avon	172
4.5.7	Conclusion	174
Chapter 4.6	Physical obstructions to use	176
4.6.1	Bridges	176
4.6.2	Fords	182
4.6.3	Weirs	184
4.6.4	Water-mills	295
4.6.5	Estuaries	200
4.6.6	Conclusion	203
Chapter 4.7	Actual use	206
<u>Part 5 Conclusion</u>		
Chapter 5.1	Physical usability, Legal usability and Use	209
Chapter 5.2	Present Day Implications	213
Chapter 5.3	Future Research	215
<u>Bibliography</u>		217

Volume 2. Appendices

A. Records of Historic Use	272
B. Mean Discharge Estimates	429
C. Transport of Stone for Cathedrals and Colleges	437
D. Rivers made navigable by Act of Parliament	445
E. Legislation relating to weirs	449
F. The gradient of the Thames	458
G. The Lay Subsidy 1334	459
H. Dates of First Obstructions of Rivers	462
I. Depth of Fords	464
J. Watermills of the Middle Wye Valley and Sussex	466
K. Watermills of Cambridgeshire, 1086-1600	469
L. Grants of Pontage. 1229-1399	476
M. Level of the Kentish Stour in Canterbury	479
N. Official Reports since 1973	481
O. Roads - An invisible Feature in the Landscape?	483
P. Natural and Given rights	496
Q. Maps	504
R. Illustrations.	511

Tables

1.	Causes of change in usability	16
2.	RLUs ordered by bed material	22
3	Variable average discharge over different periods	26
4.	Discharge Ratios South East Region Rivers	27
5.	River Discharge Ratios	27
6.	Ponded Rivers Data	72
7.	Literature about the Thames	83
8.	The Historic Limit of Use of the Thames	84
9.	The Recent Limit of Use of the Thames	86
10.	Date of Construction of Canals	120
11.	Location of the 100 most prosperous places in 1334	123
12.	Estimates of Land : River transport costs	125
13.	The length of usable rivers	151
14.	Regional Lengths of Historic Use	152
15.	Observer Bias	159
16.	The disuse of the Thames downstream of Oxford	162
17.	Weirs which apparently could not be passed	186
18.	Date of the First Obstruction of Rivers	203

Graph

1.	Discharge, gradient and bed material at recent limit of use	23
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Illustrations

(The illustrations are not included in the electronic edition of the thesis.)

1.	Shrewsbury. Late 16 th century.	iiiA
2.	Transport as illustrated in the Luttrell Psalter. 14 th century.	5A
3.	Boats being paddled. Early 15 th century.	5B
4.	John Constable, <i>The Valley Farm</i> . 1835.	7A
5.	John Constable, <i>The White Horse</i> . 1819.	7B
6.	W. Milne Black, <i>Crannog and logboat use</i> .	7C
7.	Part of John Norden's map of Surrey. c.1580.	16A
8.	Part of the 'Gough Map'. Mid 14 th century.	81A
9.	Part of Christopher Saxton's map of Gloucestershire. c.1580.	81B
10.	Part of John Speed's map of Suffolk. c.1607.	81C
11.	The River Ouzel at Eaton Bray, Beeds.	81D
12.	Part of Christopher Saxton's map of Northamptonshire. c.1580.	88A
13.	Part of Richard Budgen's map of Sussex. 1724-1725.	92A
14.	Collecting sedges.	120A
15.	The 1334 Lay Subsidy. Places with assessed wealth of £225 and over.	122A
16.	Part of Matthew Paris, <i>Abbreviatio Chronicorum Angliae</i> . c.1250-1259.	146A
17.	Part of the 'Gough Map'. Mid 14 th century.	146B
18.	John Leland, <i>Map of part of East Yorkshire</i> , c. 1550.	146C
19.	Part of John Norden's map of Essex. c. 1584.	146D
20.	Places with 'ea-tun' names.	148A
21.	Armoured Knights Jousting. 1325-53.	149A
22.	Recreation. Late 16 th century.	149B
23.	Samuel Ireland, <i>Pictureseque View of the Severn</i> . Late 18 th century.	172A
24.	William Smith, <i>View of London</i> . 1588.	176A
25.	Boats in John Speed, <i>England</i> . 1611.	176B
26.	John Constable, <i>A view of the Stour near Dedham</i> . 1822.	177A
27.	Crossing rivers in Bewick's woodcuts.	182A
28.	A Tibetan horizontal water mill.	195A
29.	A water mill as illustrated by Thomas Bewick.	199A
30.	"Paul Spoerry's Medieval Motorways."	206A
31.	Showing the popularity of a present day river.	213A

Referencing Style

In general the Harvard style has been used but due to the large number of footnotes it has been augmented as follows:

There are three texts which have been quoted so frequently that they are considered to be standard texts on their topics. Footnotes have not been entered because they are self-indexing.

Edwards. J.F. Edwards, 'The Transport System of Medieval England and Wales.' Unpublished PhD thesis. University of Salford. 1987.

BCU Guide. The British Canoe Union, *The Guide to the Waterways of the British Isles.* Weybridge: British Canoe Union. (1st Edition 1936.) 1980.

Hydrological data UK.

Centre of Hydrology and Ecology, British Geological Survey.
Hydrological Data UK. Hydrometric Register and Statistics 1996-2000. Wallingford: Centre for Ecology and Hydrology. 2003.

In the footnotes the most frequently quoted references have been abbreviated:-

Blair 2007. John Blair, Editor, *Waterways and Canal-Building in Medieval England.* Oxford: Oxford University Press. 2007.

PROME The Parliamentary Rolls of Medieval England. 1272 – 1504.
(CD Version 2005.)

TNA The National Archives.

Abbreviation

For the purpose of comparing historic use with present day use the comparator used throughout the thesis is:

RLU. Recent limit of use as given in the *BCU Guide*, first published 1936, but amended to exclude sections of rivers where the river has numerous rapids with fairly high irregular waves, eddies and whirlpools.

Units

In accordance with the normal British practice distances are measured in miles. All other quantities are measured in metric units except where another author's work is quoted where the original units are retained.

List of Notations**Chapter 2.3**

Runoff	R
Precipitation	P
Evapotranspiration.	E
Time	subscript a and b
Fractional increase in precipitation	x
Fractional evopotranspiration	y

Discharge	Q
Depth	D
Width	W
Velocity	V

Uppercase at Oxford. Lowercase at winter limit point.

Subscript s for summer, w for winter, m for mean.

Hydraulic radius of the river

(Cross section area / wetted perimeter.) r

Chapter 2.4

Width	w
Depth	d
Area of cross section of a channel	A
Slope of the channel	S
Velocity	v
Discharge	Q
Length of section	l
Height difference	h
Wetted perimeter of the channel	p
Hydraulic radius	
(Cross section area / wetted perimeter)	r
Manning resistance factor	n

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In principio creavit Deus cælum et terram.

(Genesis 1.1)

Then the angel showed me the river of the water of life, clear as crystal.

(Revelation 22.1)

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