Dirt, Dwellings and Culture



Dirt, Dwellings and Culture

Living conditions in Early Medieval Dublin: A case-study from Fishamble Street

Eileen Reilly

Archaeopress Archaeology

Archaeopress Publishing Ltd
Summertown Pavilion
18-24 Middle Way
Summertown
Oxford OX2 7LG
www.archaeopress.com

ISBN 978-1-80327-652-6
ISBN 978-1-80327-653-3 (e-Pdf)

© Eileen Reilly and Archaeopress 2024

IRISH RESEARCH COUNCIL
An Chomhairle um Thaighde in Éirinn

UCD School of Archaeology

museum
National Museum of Ireland
Ard-Mhúsaem na hÉireann

This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-nd/4.0/ or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

This book is available direct from Archaeopress or from our website www.archaeopress.com

Contents

List of Figures and Tables ..... **iii**

Preface ..... **v**

Postscript to preface vii

Preface ..... **viii**

Editors' Note ..... **ix**

Acknowledgements, by Eileen Reilly ..... **x**

Chapter 1: Introduction **1**

Insect analysis 2

Chapter 2: Viking Dublin and the Fishamble Street Excavations in context **4**

The establishment of a Viking presence at Dublin – the first raiding settlements 4

What was the Viking town like in the late 9th, 10th, and 11th centuries? 7

Viking Dublin's streets and pathways 7

Houses and other buildings 8

Property plots and their boundaries 9

Previous environmental evidence from Viking-age Dublin 9

Bringing a focus on Fishamble Street 11

Chapter 3: Methods of this study **14**

Introduction 14

Contexts analyzed 14

Sample processing and data analysis 19

Eco Codes 19

Chapter 4: Insect analyses through time **30**

Introduction 30

Boulder clay level 30

Building Level 1 30

Building Level 2 32

Building Level 3 37

Building Level 4 38

Building Level 5 42

Building Level 6 44

Building Level 7 46

Building Level 8 50

Building Level 9 54

Building Level 10 54

Building Level 11 62

Building level 12 68
Building Level 13 68
Building Level 14 70

Chapter 5: Reconstructing living conditions in the houses, plots, streets, and surrounds of Viking Dublin 75

House interiors, division of space 75
The yards and outbuildings 77
The pits 78
Living conditions 78
Hinterland connections 80
Shipping, trade and miniature stowaways 82
Fishamble Street and early medieval Irish settlement – the insect evidence 83
The European context – insect evidence from settlement sites 86

Chapter 6: Conclusions: Thinking about dirt and hygiene in early medieval societies in Ireland and beyond 90

Introduction 90
Defining dirt – what it is, and what it is not 90
Reconstructing early medieval ideas of dirt, personal hygiene and cleanliness: archaeological and documentary evidence 92
Dirt and cleanliness in early medieval settlements: bioarchaeological evidence 93
Dirt and hygiene in early medieval societies 100
Conclusion and future research directions 102

Appendix 1: Technical report appendix 103

Boulder clay level 103
Building Level 1 103
Building Level 2 104
Building Level 3 106
Building Level 4 107
Building Level 5 109
Building Level 6 110
Building Level 7 111
Building Level 8 114
Building Level 9 116
Building Level 10 117
Building Level 11 123
Building Level 13 126
Building Level 14 128

Bibliography 132

Online tables 140

List of Figures and Tables

Figure 1: Location map showing sites of major NMI, OPW and commercial archaeological excavations in Dublin, 1962–2010 (© Johnny Ryan). 2
Figure 2: Important Viking settlements in northern Europe, AD 800 – 960 (© Johnny Ryan). 5
Figure 3: Revised version of building plan (Wallace 1992a: 44) (© National Museum of Ireland; image: Michael Heffernan) 12
Table I: List of samples analyzed, grouped according to contexts 15
Figure 4: Number of samples per context group analyzed from Fishamble Street. 17
Table II: Summary of sample productivity – total number of beetles per context group and average MNI. 18
Figure 5: Total MNI (minimum number of individuals) for beetles per context group, Fishamble Street. 18
Plate 1: Neobisnius villosulus (image : Marc Tonquet) 20
Plate 2: Pomatinus substriatus (image: Kirrill Makarov) 20
Plate 3: Cercyon depressus (image: Lech Borowiec). 21
Plate 4: Bruchus rufimanus (image: Jean-Bernard Huchet). 21
Plate 5: Euplectus spp. (image: Kirrill Makarov), and Ptelobius vittatus (image: Christoph Benisch). 22
Plate 6: Aphodius granarius (image: Jean-Bernard Huchet), A. contaminatus (image: Jean-Bernard Huchet), and Platystethus arenarius (image: Marc Tronquet). 22
Plate 7: Cercyon unipunctatus (image: Jean Hevre), C. haemorrhoidalis (image: Jean-Bernard Huchet), and Trox scaber (image: Jean-Bernard Huchet). 23
Plate 8: Carpelimus bilineatus (image: Christoph Benisch), Cerycon analis (image: Kirrill Makarov) and Dendrophilus punctatus (image: Christoph Benisch). 24
Plate 9: Oxytelus sculpus (image: Kirrill Makarov), Omosita cf. colon (image: Christoph Benisch). 25
Plate 10: Aglenus brunneus (image: Lech Borowiec). 26
Plate 11: Xylodromus concinnus (image: Marc Tronquet), Anobium punctatum (image: Kirrill Makarov, Cryptophagus (image: Jean-Bernard Huchet) and Atomoria (image: Svetlana Kuzmina). 27
Plate 12: Blaps lethifera (image: Jean-Bernard Huchet). 28
Plate 13: Gracilia minuta (image: Christoph Benisch). 28
Plate 14: Hylotrupes bajulus (image: Jean-Bernard Huchet). 29
Plate 15: Sitophilus granarius (image Jean-Bernard Huchet). 29
Figure 6: Plan of FS 1 showing sample locations (green triangles, Table 1). 31
Figure 7: FS 3, Plot 1, showing sample locations. 33
Figure 8: FS 4 and 5, Plot 2, showing sample locations. 34
Figure 9: FS 10, Plot 3, showing sample locations. 36
Figure 10: FS 17, Plot 4, showing sample locations. 39
Figure 11: FS 19, Plot 8, showing sample locations. 41
Figure 12: FS 28, Plot 10, showing sample locations. 43
Figure 13: FS 35, Plot 10, showing sample locations. 45
Figure 14: FS 45 and 46, Plots 8 and 9, showing sample locations. 47
Figure 15: FS 51 and 53, Plots 3 and 4, showing sample locations. 49
Figure 16: FS 60 and 61, Plots 9 and 10, showing sample locations. 51
Figure 17: FS 62 and 63, Plots 11 and 12, showing sample locations. 53
Figure 18: FS 77, Plot 10, showing sample locations. 55
Figure 19: FS 84 and the drain in lean-to structure 227, Plot 4, showing sample locations. 56

Figure 20: FS 88 and 89, Plots 9 and 10, showing sample locations. 58
Figure 21: FS 90 and 91, Plots 11 and 12, showing sample locations. 61
Figure 22: FS 92 and 93, Plots 3 and 4, showing sample locations. 63
Figure 23: FS 97, Plot 9, showing sample locations. 65
Figure 24: FS99, Plot 11. 66
Figure 25: FS 101, 102 and 103, Plots 2 and 3, showing sample locations. 71
Figure 26: FS 118, Plot 4, showing sample locations. 72
Figure 27: Ordination of Fishamble Street samples (n = 98) by context; note the clustering towards the top of side aisle, corner wall packing deposits 79
Figure 28: Ordination of insect assemblages from Fishamble Street, Temple Bar West, and Barronstrand Street (left) and by context type (right) 85
Figure 29: Location map of sites discussed in text (Wikipedia creative commons). 91
Figure 30: Plan of central house X and Theta, Level 6, Deer Park Farms, N. Ireland (after Lynn and McDowell 2011: 125, Figure 7.3). © Crown DfC Historic Environment Division 93
Figure 31: Concentrations of intestinal parasite eggs, primarily Trichuris trichura, in Levels 4a and 6 at Deer Park Farms, Co. Antrim, Ireland (Annotated plan from Lynn and McDowell 2011: 106, figure 6.8). © Crown DfC Historic Environment Division 96
Figure 32: Plan of streetscape and houses, Level 7 (mid 10th century), Fishamble Street, Dublin (© Johnny Ryan/National Museum of Ireland) 97
Figure 33: Plan of streetscape and houses, Level 10 (late 10th/early 11th century), Fishamble Street Dublin (© Johnny Ryan/National Museum of Ireland). 98
Figure 34: Ordination of insect assemblages from indoor and outdoor contexts, Deer Park Farms, Fishamble Street, and Drumclay crannóg 101

Table I: List of samples analysed, grouped according to contexts - http://doi.org/10.32028/9781803276526-TableI
Table II: Summary of sample productivity – total number of beetles per context group and average MNI - http://doi.org/10.32028/9781803276526-TableII
Table III: Boulder clay and Building Level 1 - http://doi.org/10.32028/9781803276526-TableIII
Table IV: Building Level 2 - http://doi.org/10.32028/9781803276526-TableIV
Table V: Building Levels 3 and 4 - http://doi.org/10.32028/9781803276526-TableV
Table VI: Building Levels 5 and 6 - http://doi.org/10.32028/9781803276526-TableVI
Table VII: Building Level 7 - http://doi.org/10.32028/9781803276526-TableVII
Table VIII: Building Levels 8 and 9 - http://doi.org/10.32028/9781803276526-TableVIII
Table IX: Building Level 10 - http://doi.org/10.32028/9781803276526-TableIX
Table X: Building Level 11 - http://doi.org/10.32028/9781803276526-TableX
Table XI: Building Level 13 - http://doi.org/10.32028/9781803276526-TableXI
Table XII: Building Level 14 - http://doi.org/10.32028/9781803276526-TableXII
Table XIII: Insect analysis from Drumclay AE/10/99 - http://doi.org/10.32028/9781803276526-TableXIII
Table XIV: Preliminary parasite analysis from Fishamble Street - http://doi.org/10.32028/9781803276526-TableXIV

Preface

My wife, Eileen, passed away in July 2018. She left behind the bulk of this monograph and it has been completed through the good offices of her colleagues Dr. Lorna O'Donell and Professor Aidan O'Sullivan.

It is an epitaph to a scientist and a scholar, and to her love for her native city.

Eileen was an archaeologist to her fingertips. And she was also a Dub. Working on the Fishamble Street samples was a thrill for her. A marriage of interests.

Her scientific interest in coleoptera was driven primarily by what they could tell us about the human experience. But she thought they were beautiful too. Her beetle specialism – I used to enjoy the reaction of people when asked what she did - was not an alternative to archaeology, it complemented it.

While this volume is almost entirely Eileen's work – it was described to me as 95% finished when I retrieved it from her computer's systems – others have worked to get it over the line.

I am grateful to them.

Eileen was grateful too to the Irish Research Council who funded this research by way of a Government of Ireland Post-Doctoral Research Fellowship, 2013-2015.

One of the most difficult things to reconcile about her passing is the loss of her potential and the contribution to the profession she would have made. As an environmental archaeologist she broke new ground and I know she was looking forward to going further.

Eileen, of course, was more than an archaeologist even though the subject consumed her. She was a mother, a wife, a sister, and a daughter. She was a caring and warm human being, a loyal friend with a beautiful personality. Everyone liked her.

I am pleased we have been able to get this book published for her and I hope she won't be too cross about some of the assumptions we have made to help complete it.

She is hugely missed by her friends and family.

But most of all by myself and her beautiful daughter Áine.

Rónán O'Brien
October 2023

Preface

I will always remember when I first visited Pat Wallace's excavations on the Fishamble Street site, Dublin 37 years ago. I was staggered by the level of organic preservation. I hadn't seen anything like it. It was a treasure trove of archaeology and not least for an environmental archaeologist. I had seen waterlogged organic preservation before on early urban sites in Britain but nothing on that scale.

Pat and his crew had a great responsibility on their shoulders, as they knew full well, and incredible pressure was placed on them for the duration of the excavation. Pat was very much inclined to environmental sampling, not least because of Frank Mitchell's regular visits. Finbar McCormick had also worked on the site and was instrumental in encouraging the collection and sampling of several tons of animal bones for his study and for further research. Also the structural wood of the houses was identified as it was excavated. It did not therefore take much persuasion to set up a sampling programme for the non-wood macro plant remains which an enthusiastic student of mine with a love of plants – Siobhan Geraghty – began for her Master's research. The National Museum facilitated the work with equipment for processing the samples and a place for Siobhan to work.

Siobhan and I noted the presence of insect remains in the samples back then in the early 1980s, and realised the potential for their study from the ongoing work of Paul Buckland and Harry Kenward in York. However, as it happened, some of the pioneering work on insects from archaeological sites was carried out by G. Russell Coope from Birmingham University on samples from Brendan O'Riordain's excavations at Christchurch Place and Winetavern Street.

Unfortunately no one was available at that stage to carry out an archaeoentomological study on the Fishamble Street samples.

Fortunately the sampling strategy we put in place was an optimistic one and involved taking more samples than Siobhan's project could deal with. The realisation that their content would hold potential for future research was accepted by Pat and the National Museum, and hence with storage advice from us, has meant that over 30 years later they were available for Eileen's work.

This study was always waiting to happen, but it needed the right person to take it forward and that person has been Eileen Reilly, whom I have known for over 20 years. Her interest and enthusiasm for environmental archaeology found a focus in archaeoentomology when she was studying for an MSc with Paul Buckland in Sheffield. She came back to Ireland energised by the possibilities of insect studies and first realised the potential for Viking Age samples from the Waterford excavations. We spoke about the Fishamble Street material back then and the possibility that the samples may still be present and viable (as they were for those from Waterford).

With Lorna O'Donnell this possibility became a reality when they successfully obtained funding to prospect the Dublin samples.

There was a huge amount of work involved in going through the samples and checking their viability before the extraction and analysis could be undertaken. This was done with maximum efficiency and this tremendous volume of information and interpretation has been the outcome. The new insights that Eileen has gained from the study both enhances but also considerably 'fine tunes' our understanding of the variation in living conditions of this internationally important site – fully justifying the curation and storage of the samples for over 30 years.

I am delighted that this work has been published. It reflects well on all concerned – Pat Wallace and his excavation team, the National Museum for having curated the samples for over three decades, and especially the work of my friend and colleague Eileen Reilly, who saw the value of the samples and carried out this exemplary study.

Postscript to preface

Mick Monk: I wrote the above a couple of years ago, shortly after Eileen asked would I do so.

I didn't think I would need to write a postscript. To be honest I find it difficult to do this because I still cannot believe Eileen is no longer with us.

She had so much more to give to life, to her family, her friends, and her profession. She was supportive to everyone in all areas of her life and not least her friends and colleagues.

Every one of us in our small group of environmental archaeologists in Ireland have cause to thank her for her friendship and the support she has given us in our work. She gave freely of her time to help and advise.

Her enthusiasm for her work was contagious. She loved nothing more than discussing this with others and interacting with colleagues about their work. Although a specialist, she was always able to see the wider relevance of the results of her research and the implications it had for cognitive environmental and cultural archaeological interpretations.

This was particularly the case for the research into the early medieval and Viking age urban environments not only in Ireland but across Europe, to which she has made a major contribution. It is a travesty that she was on the threshold of taking this research to another level when she was taken ill.

Eileen's contribution and passion for archaeoentomology is to be seen in many scholarly publications that she published in her own name or contributed to. However, I know the work she carried out on the Fishamble Street samples, and the bringing this together for publication, was of key importance to her because it was work showcasing the international importance of the archaeology of her home city.

November is a time to remember, and a time to be thankful. I will always remember you Eileen and be thankful that I knew you as both a good friend and a colleague. I, along with the others in our group of Irish environmental archaeologists, will continue to miss your friendship, your scholarship, and your encouragement of our own work. This volume, along with your other publications, will serve to remind us of your pioneering scholarship and presence in our lives.

Mick Monk
November 2018

Preface

This is the second set of comments that I have written on Dr. Eileen Reilly, following her death in 2018, in the space of the last two months in the Summer of 2022. It is not a surprise, given the normal half decadal pace of academic publishing that I am being asked to do this at this date. What remains a surprise that I find myself having to writing them at all. The tragedy is, of course, that Eileen was taken from us all much to young.

Eileen was educated in archaeology at University College Dublin, graduating in 1992. She undertook an MSc in Environmental Archaeology at Sheffield in 1995 which was followed by a PhD on insect biodiversity in modern woodlands at Trinity College Dublin which was awarded in 2008. Eileen also worked as a consultant on archaeoentomology of a number of important archaeological sites particularly the Iron age Corlea Bog Trackway and a range of Late Bronze, Iron and Viking age deposits from the waterfront at Dublin; such as, Temple Bar and, most importantly, Fishamble Street. Eileen was on of the few archaeoentomologists to work deliberately on urban and settlement deposits, with their rich insights into human life and behaviour, rather than concentrating the 'paleoecological' role of the discipline. This probably speak to her love of the archaeological and her appreciation of what this work can bring to the archaeologists and the sites on which they work. Towards the end of time with us Eileen had started work on the insect faunas from the Drumclay crannog site. I have been privileged to see the draft of some of this work and it is highly innovative and analytical. Perhaps Eileen largest impact is that she promoted the discipline of Environmental Archaeology, and archaeoentomology in Ireland with such dedication and charm that its futures seemsed assured.

My initial contact with Eileen was the result of supporting her early work, particularly confirming her identifications, when she started to work as an independent consultant back in the 1990s. For several years she was a constant visitor to the lab at Birmingham, an event I always looked forward to. As the years went by, and life and family intervened for both of us, this happened less often. We did continue to have 'nerdy' conversations about long dead beetles and when we met at conferences we would great as old friends. Mainly, this was due to Eileen being one of those people who had the gift of just picking up the conversation from the last time we spoke often years previously.

I also hoped, or dreamed, that, as I headed towards the last 10 years of my working life, Eillen would start to take over my UK work from me. After all she was a decade younger than me, was the safest pair of hands around, and would be a good 'inheritor'. Amongst the least important implications of her early death, is that, perversely, I have started to inherit projects from her. This passage of events is clearly the wrong way around and, in its own minor way, is deeply sad.

David Smith

January 2023

Editors' Note

Dr. Eileen Reilly would have written a better book than this, but she just didn't get the time to do it. As editors, we have taken her early drafts, her texts and illustrations, and, with the addition of a paper as a concluding chapter that she was then co-authoring with one of us (Aidan O'Sullivan), we have sought to complete the draft text, as we think she may have finished it. We know that Eileen would have done much more work if she had the chance and can imagine her going back and forth over the text, checking details, conferring with colleagues, and honing her analysis. However, as the Irish Quaternary scholar Prof. Frank Mitchell once said at a conference in TCD many years ago, 'The best is the enemy of the good'. This book is not the best that Eileen would have done; she would have done it far better than us, but we hope that the scholarly community will agree, it is still very good, and a vital contribution to the archaeology of her native city.

Lorna O'Donnell,
Aidan O'Sullivan,
and Stephen Davis
December 2020

Acknowledgements, by Eileen Reilly

This book began as the result of a project undertaken under the auspices of The National Museum of Ireland and co-funded by them and the Environment Fund of the Department of Arts, Heritage and the Gaeltacht in 2011–12. However, it was clear that many of the findings, especially those related to living conditions, needed to be explored and discussed in a wider European context. A subsequent application to the Irish Research Council resulted in a successful Postdoctoral Fellowship at UCD School of Archaeology (2013–15), under the eponymous title of this book, which allowed for many of these wider themes to be examined. There are, therefore, many people to thank for helping to bring this work to fruition.

I would like to thank Dr Patrick Wallace, retired Director of the National Museum, and Dr Raghnall Ó Floinn, current Director, who supported the application to the Environment Fund and were instrumental in shepherding the project in its infancy; Eamonn Kelly and Maeve Sikora who steered things in-house, and Tara Jennings and Eamonn McLoughlin for financial management.

Thanks to all the staff of Collins Barracks who facilitated the sample inventory project. Thanks to Brenda Malone and the staff of Treacy's for help in transporting the samples from Daingean to Collins Barracks and to volunteer Tommy Leonard for help in moving samples within the Quartermaster's Store in Collins Barracks.

To the numerous archaeologists and labourers who worked on the excavations at Fishamble Street we all owe a particular debt of thanks. Without their meticulous excavation, recording and sampling of the deposits and features, none of this work would be possible.

Heartfelt thanks must go to Adrienne Corless, former post-excavation manager of the Dublin Excavations Project, for supporting the project in every way possible; to Mark Gallagher, whose encyclopedic knowledge of the stratigraphy of Fishamble Street was invaluable in trying to identify the origins of each and every sample inventoried, and to Johnny Ryan, whose stunning digital rendition of the original site plans was critical to visualizing the sample locations.

Thank you to Darren Mann, Head of Life Collections at the Oxford University Museum of Natural History, for access to the entomology collections and for his generous assistance on many of the more difficult identifications.

To a great number of people who have provided useful criticisms, comments, discussions on aspects of this work over the last two years: Rebecca Boyd, Steve Davis, Susan Lyons, Mick Monk, Ellen O'Carroll, Lorna O'Donnell, Jean O'Dowd, Aidan O'Sullivan, Bettina Stefanini, Ingelise Stuijts, and David Smith.

Finally, and most importantly, to Lorna, who undertook the inventory with me and whose professionalism, thoroughness, and dedication to the task in hand were extraordinary and always a source of inspiration; to Bettina, without whom this project would never have happened; to Rónán and Áine, who make everything worthwhile, and to my family and in-laws, who have always been proud of my achievements, as I have been of theirs.

I dedicate this book to all of them but especially to my late mother, Jo Reilly (1946–2009).

Eileen Reilly
Dublin 2016