

RGC Reference HKU705-HSS-12
<i>please insert ref. above</i>

The Research Grants Council of Hong Kong
Prestigious Fellowship Scheme under the Humanities and Social Sciences Panel
Completion Report
(for completed projects only)

Part A: Project and Award Holder

1. Project Title

Wavelet analysis of the time-series of climate change and social crises in history

2. Award Holder and Academic Department/Unit Involved

Name/Post	Unit/Department/Institution	Contact Information
Zhang Dian/Professor	Department of Geography, University of Hong Kong	zhangd@hku.hk

5.2 Revised workplan

Date of approval from the RGC: _____

Reasons for the change: As the fund reached the University until the beginning of
2013. I have to delay the starting date that in original research proposal.

Period Research work under the fellowship

1. *01/01/2013–03/2013 Collect historical time-series of climate change and social parameters and discuss research methods with the historians, scientist and social scientists in China, Europe and USA so as to improve the accuracy of the datasets and the quality of research.*
2. *04/2013–05/2013 Compute and process all time-series*
3. *06/2013–12/2013 Analyze the results from wavelet analysis and write three journal articles in the remaining 8 months.*

5.3 Realisation of the workplan

(maximum 2 pages; please state how and to what extent the work as stated in the workplan has been achieved; give reasons for under-achievements and outline attempts to overcome problems, if any)

I have followed the workplan accordingly during the project period. The process was smooth.

6.3 Realisation of the dissemination plan
(maximum 2 pages; please state how and to what extent the output as stated in the dissemination plan has been achieved; give reasons for under-achievements and outline attempts to overcome problems, if any)

I have successfully published three articles on international peer-review journals according to my dissemination plan. All these journals are the top journal in the different fields. Other two papers have been submitted to the top journals for review. It should be noted that the first paper (forthcoming in the next month) will be published on the number one journal in geography in term of the impact factor. The published and publishing papers are listed as the followings:

David D. Zhang, Qing Pei, Harry F. Lee, Jane Zhang, C. Q. Chang, Baosheng Li, Jinbao Li, Xiaoyang Zhang (forthcoming) The pulse of imperial China: a quantitative analysis of long-term geopolitical and climate cycles. Global Ecology and Biogeography (ranked number one in physical geography, Impact factor:7.24).

Qing Pei, David D. Zhang (2014) Long-term relationship between climate change and nomadic migration in historical China. ECOLOGY AND SOCIETY (Impact Factor: 3.31). 19(2):68. DOI:<http://dx.doi.org/10.5751/ES-06528-190268>

Qing Pei, David D. Zhang, Harry F. Lee, Guodong Li. (2014) Climate Change and Macro-Economic Cycles in Pre-Industrial Europe. PLoS ONE 9 (2): e88155. doi:10.1371/journal.pone.0088155 (Impact factor :3.53)

All of these papers have acknowledged the RGC.

7. Other impact (e.g. award of patents or prizes, collaboration with other research institutions, knowledge transfer, etc.)

Plenary Keynote Speech in the International Conference of Climate Change and Conflicts, Norway 2013, Christinsand