

Growth in the Interest of Permaculture in the United States

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ABSTRACT

To understand the degree to which the concept of permaculture is being implemented throughout the United States, quantitative methods were used to study the growth in permaculture courses offered over a period of time. The research was conducted through on-line sources.

[permaculture, courses, grassroots]

INTRODUCTION AND BACKGROUND

Permaculture is a term that was conceived in the 1970s by two Australians, Bill Mollison and David Holmgren, by combining the words permanent, agriculture and culture. Initially concerned with finding ways to improve food production in an arid environment, the concept has evolved into a grassroots movement that implements ecological design. The concept is found in practice across the globe. As defined by David Holmgren,

permaculture is a practice of “Consciously designed landscapes which mimic the patterns and relationships found in nature, while yielding an abundance of food, fibre and energy for provision of local needs” (Holmgren in Ferguson and Lovell 2014, p. 252).

While permaculture has grown in popularity, particularly in the United States, Australia and Great Britain, it is mainly among non-scientists and activists looking for options to create holistic, sustainable cultures. Training in permaculture concepts and design methods is primarily offered in the form of a two-week design certificate course taught around the world by expert practitioners, and the courses are often located on active permaculture sites. Currently there are no formal academic degrees offered in permaculture, although it has been estimated that as many as 100,000 people world-wide, and 40,000 in the

United States have been trained in the certificate course (Tortorello 2011). There is also an extensive body of permaculture literature, most of it written by “non-scientists for a popular audience” (Ferguson and Lovell 2014, p. 258).

Although popular, the movement “runs deep beneath sustainable farming and urban food gardening” (Tortorello 2011) and remains isolated from scientific research (Ferguson and Lovell 2014). Permaculture has become a research topic of interest in recent years both because of the unique and comprehensive design methods, and because of its grassroots popularity. Anthropologists James Veteto and Joshua Lockyer have noted that permaculture is a “development strategy that has a history of grassroots application, but it has been largely ignored by mainstream development practitioners and anthropologists alike” (2008, p. 47). The fact that permaculture has not received much attention in the scientific community has itself caught the attention of researchers looking to

understand the reasons for the separation of permaculture from science. Researchers Ferguson and Lovell have undertaken a quantitative “bibliometric” (statistical analysis of published material) data analysis that sought to understand the prevalence with which the topic of permaculture appears in different types of publications. They found that since 2008 there has been significant growth in the number of scholarly articles and graduate thesis papers written about permaculture across a variety of disciplines. Additionally, these researchers qualitatively reviewed the permaculture literature to identify the key concepts and definitions used in the writings, with the goal to understand how principles of permaculture can be applied to more mainstream scientific disciplines such as agroecology.

Scott (2010) undertook a similar study by reviewing database citations that included the term permaculture, and by reviewing the number of scientific citations mentioned in the magazine *Permaculture Activist*. His conclusions

were aligned with those of Ferguson and Lovell, finding a “slight upward trend” in the number of scientific citations that appeared in the permaculture magazine since 1985. He concluded that while permaculture is a popular movement it has “not yet entered the larger societal discussion on sustainability” (2010 p. 16).

With this background in mind, the research for this article was conducted from a different approach. The primary purpose of this research was to assess the growth in popularity of permaculture in the United States by asking the research question: to what extent has the interest and awareness in the concept of permaculture increased in the United States during the last decade, and can this increase be measured by the increase in permaculture courses and certifications offered throughout the country? Of secondary interest was to understand if the interest in permaculture is associated with other popular food venues and trends, such as the growth in farmers markets, and if there is any correlation with course

offerings and political affiliation in the United States.

METHODS

This research was conducted during the Spring of 2015. As the previous discussion illustrates, there has been scant (but growing) research conducted that provides an assessment of the growth of the permaculture “movement”. A literature search did not yield substantive or comprehensive information about the number of permaculture courses offered in the United States. In order to gather information for this article, data was collected by reviewing the courses listed in the online source *Permaculture Activist*. This source contains a monthly listing of permaculture courses offered across the United States and around the world, dating from 2002 through 2014. This source was found to be the only one available that contained a centralized listing of permaculture course information. Personal communication with the publisher of

the website confirmed that, to their knowledge, permaculture course information was not available from their records, other than from the online calendar. (Given the uncentralized nature of the movement, the fact that there is not a central “clearinghouse” with course data is not surprising.)

The online course listings were reviewed, and the data was collected by compiling an Excel database of course information. Course information was entered by month, year, location by state, and duration. Information for a total of 290 courses was compiled for this project. Due to the large number of course listings, the detailed manner in which the data is recorded, and time limitations, the data was collected for every three years, beginning in 2002 and ending in 2014.

In addition to the data being a sample from all that is available, it should also be noted that the data from this source is likely to be incomplete, as it is an open-source calendar that any organization may access to post course information.

Additionally, the course data was somewhat manipulated to condense categories; for example, 8-day courses were grouped into the 1-week category.

The data and information that was collected for the secondary questions related to farmers markets and political affiliation by state was found utilizing online sources (U.S. Department of Agriculture, and Wikipedia).

Once compiled, the data was analyzed using Excel to create descriptive statistics charts. Pearson’s correlation coefficient was also used in the analysis to determine if there was a relationship between the variables under consideration.

RESULTS

It should be noted that these preliminary results were conducted with simple descriptive statistical analysis. The topic would benefit from further research using more complete and robust data, and by utilizing additional statistical

techniques that might further illustrate the data.

The initial analysis of the number of permaculture courses offered in the United States between

2002 and 2014 showed that the number of courses has increased during that time period. The compiled data is displayed as a bar chart in Figure 1.

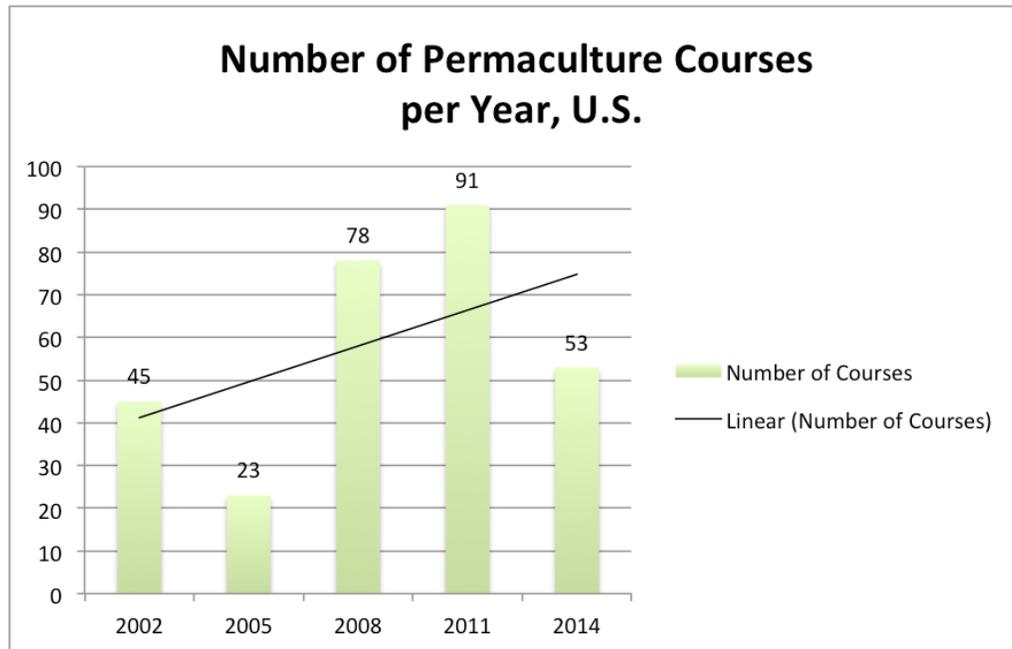


Figure 1

Reviewing the change in the number of courses per year shows that there has been a significant increase over time. Between 2005 and 2011, the increase was nearly 300 percent. It was also observed that between 2002 and 2005 there was a 49 percent decrease and between 2011 and 2014 there was a 42 percent decrease in the number of courses listed on the online calendar. The

reasons for the periods of fewer courses offered during these periods are unclear but may relate to the nature of the data source (the open-source calendar) and postings to that.

Information regarding the number of two-week certification courses was collected along with the number of courses posted. Interestingly, the number of certification courses offered as a

percentage of the total permaculture-related courses was the highest in 2005, when 60 percent of the courses offered were for certification. The number dropped to 18 percent in 2008 and then increased to 38 percent and 36 percent in 2011 and 2014, respectively. The reasons for this change in percentage were not studied.

An additional analysis was conducted to assess if the increase in permaculture courses paralleled the

increase in popular food distribution systems, such as the growth in farmers markets. The percentage of increase in permaculture courses and farmers markets that took place over a six year period (between 2008 through 2014) in the United States is shown in Figure 2.

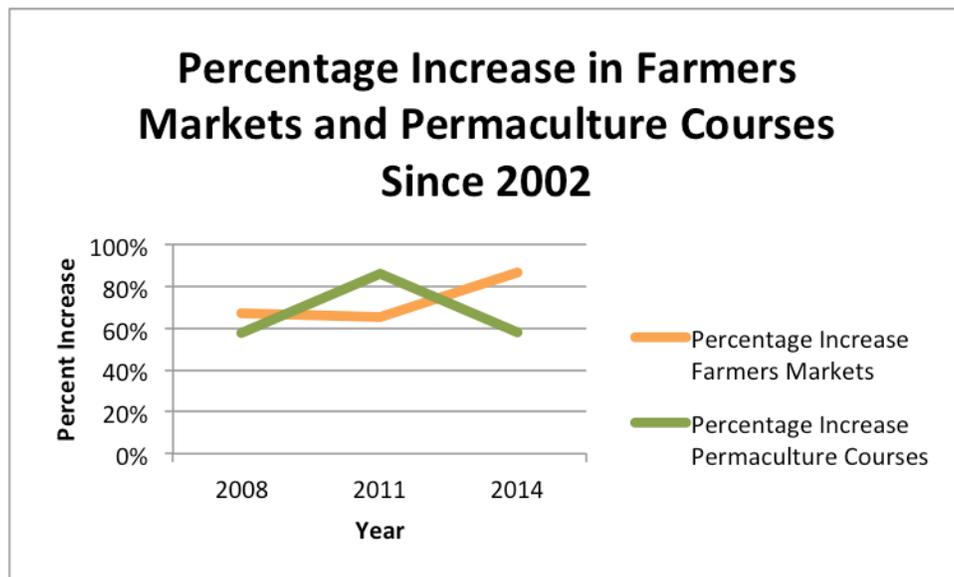


Figure 2

In terms of trends, both farmers markets and permaculture courses have increased in numbers over the period of interest. However, while farmers markets have increased

consistently over this time period, the number of permaculture courses varies considerably more. The correlation coefficient between permaculture course offerings and

farmers markets is fairly low, at $r=.30$. The drop in the number of permaculture courses offered that occurs after 2011 was not explained in this research project.

Another analysis was conducted that compared the number of permaculture courses offered by state to the states' political affiliation. In looking at the distribution of

courses offered across the states, as shown in Figure 3, there appears to be markedly more permaculture courses offered in primarily democratic states, but because the correlation between the data sets is very low at $r=.05$, no conclusion can be made about a correlation between political affiliation and the interest in permaculture.

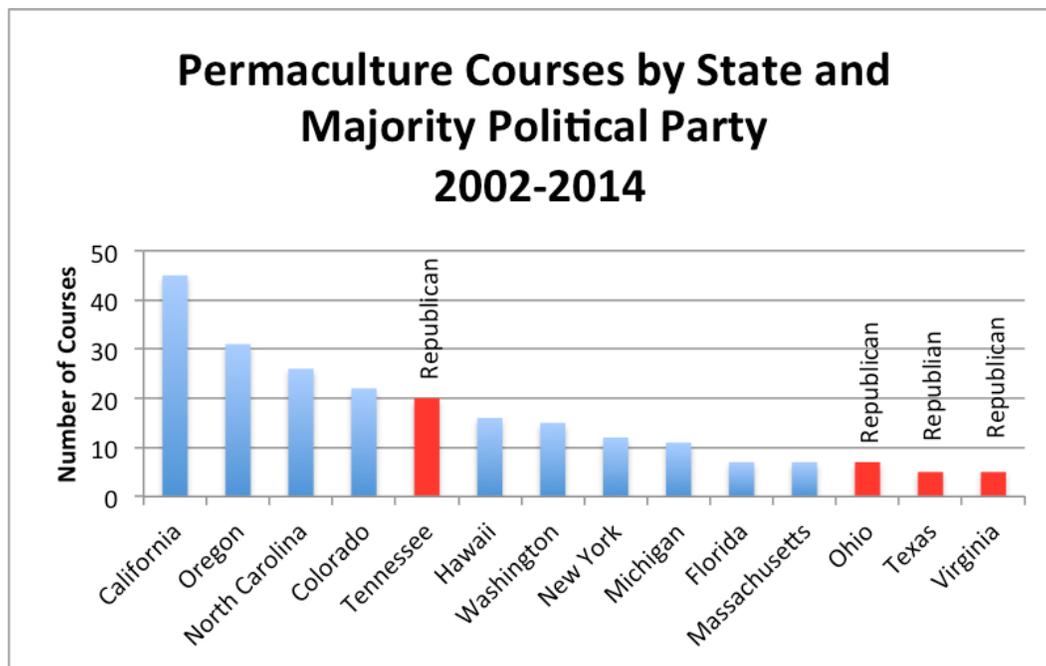


Figure 3

CONCLUSION

Based on the increase in the number of permaculture course offerings over the time period studied, it can be concluded that interest in the practice

is growing. This conclusion weakly supports the research hypothesis that an increase in interest in permaculture can be measured by the number of course offerings, given the

limitations of the data and the basic statistical methods that were used in the analysis. Other variables studied, such as numbers of farmers markets and political party affiliation by state cannot be determined to have any correlation to the number of permaculture courses offered.

ACKNOWLEDGEMENTS

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This researcher concurs with the opinions of the researchers mentioned at the beginning of this article, that further study into the practice of permaculture would be beneficial so that the useful practices being explored and implemented can be communicated to a wider audience, including the scientific community.

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