

Project Proposals: Team G

1. First Proposal - Out-of Campus

Description of Rainwater Accredited Professional by Type of The American Rainwater Catchment Systems Association (ARCSA)

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A. Topic

Rainwater Harvesting in US is a practice/technology/business that in recent years has expanded adepts and adopters. Initially, rainwater collection was pushed by droughts and groundwater depletion and pollution in arid regions of US as a source of fresh water supply (e.g. Texas and California). Nowadays, this practice/technology is considered to be a key element in converting U.S. cities (and its infrastructure) in sustainable environments. Rainwater collection not only provides fresh water supply, it also manages storm water runoff and its pollution and opens the possibility of reuse and energy generation through, for example, fuel cells#. Taking into account that the demand of incorporating rainwater harvesting systems in architecture design is expected, we are urged to describe and quantify the architects that belong to ARCSA to prepare prepare and produce future guidelines and tools that help the architects face this new demand. ARCSA, architecture schools and researches are the potential clients of this survey.

B. Questions of the study

As mentioned before, the survey aims to describe (location, expertise and other organization liaison) and quantify architects among the ARCSA members. A recent survey focused on the Rainwater harvesting business and identified the type of professionals involved; however, it did not describe the type of professional among the ARCSA members. Therefore, a detailed decomposition of the ARCSA members to identify the architects is desired. A list of around 300 accredited ARCSA professionals was obtained from the ARCSA directory in August 2011 with information of the business name, person in charge, address, phone, fax, email, website, category (e.g. Member, Landscape Architect, Rainwater System Installer) and Accredited Professional (AP) (persons in the organization that are AP). However, not all entries are filled for each of the business registered that has AP members, and some businesses presented more than one AP; therefore, more search is needed in order to identify all architects in the ARCSA organization.

C. Research

1. Title: NM Grower Harvest Rain Before Veggies
Author name(s): Douglass Pushard
Date: June 2010
Source: The Quarterly Newsletter of ARCSA, Volume 1, Issue 2, pp. 5
<http://www.arcsa.org/files/ARCSA%20June%202010%20Newsletter.pdf>
Summary: The newsletter gives insight into the types of professionals associated with ARCSA and the uses of harvesting rainwater. This article shows that harvesting rainwater serves several different purposes among different professions and environments, which would be useful in our survey for assessing types of professionals in ARCSA.
Team member: Terra Mack
2. Title: Domestic rainwater harvesting to improve water supply in rural South Africa
Author name(s): Jean-Marc Mwenge Kahinda, Akpofure E. Taigbenu, Jean R. Boroto
Date: August 2007
Source: Physics and Chemistry of the Earth, 32 (2007) 1050-1057

Summary: This journal article provides background on why the topic of rainwater harvesting is so important to civil and environmental engineers. It describes the social implications and improvements that could be made with continued research into methods of harvesting rainwater.

Team member: Shannon Lauricella

3. Title: Introducing Sustainability into the Architecture Curriculum in the United States
Author name(s): James Wright
Date: 2003
Source: International Journal of Sustainability in Higher Education, Volume 4, Issue 2 <http://www.emeraldinsight.com/journals.htm?issn=1467-6370&volume=4&issue=2>
Summary: Our survey intends to target architects working for ARCSA and this article serves to demonstrate the relevance of our target population. The purpose of this article is to explain how inextricably linked architecture and sustainability are. It provides a good framework for why architects should be involved with projects, like harvesting rainwater, that provide sustainability.
Team member: Sam Lavery
4. Title: Strategy Use and Challenges of Ecological Design in Landscape Architecture
Author name(s): Meg Calkins
Date: 2004
Source: Landscape and Urban Planning Volume 73, Issue 1
<http://www.sciencedirect.com/science/article/pii/S0169204604000945>
Summary: This survey tried to identify the reasons why ecological design advancements were not being implemented in landscape architecture. It provides a basis for trying to understand the professional make-up of a ecological design team such as ARCSA.
Team member: Ariel Liu
5. Title: U.S. Rainwater Harvesting Market - 2010 and beyond
Author name(s): Doug Pushard and Jason Kerrigan
Date: 4 October, 2010
Source: Audio visual presentation of ARCSA conference presentation in Austin, Texas. <http://www.arcsa.org/content.asp?admin=Y&contentid=91>
Summary: Presentation of the findings of a survey to an array of businesses across of the U.S. rainwater harvesting market. Results represent a boost to the anecdotal evidence that - even in a slow economy - rainwater harvesting is a growing market.
Team member: Alejandra Munoz Munoz