Plot by Plot: Creating an Educational Framework for the Various Urban Growers in the DC-Maryland-Virginia Region

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Introduction/Need for Innovation or Idea

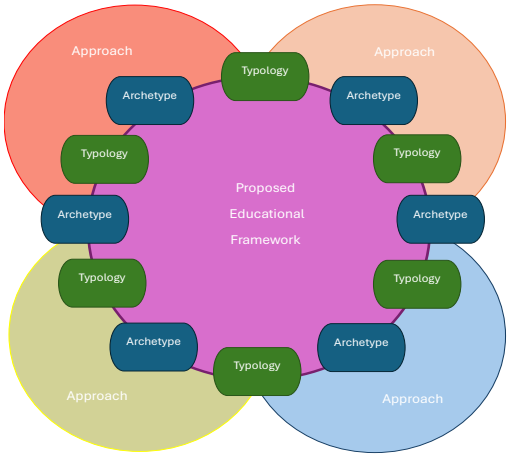
Urban agriculture is a rapidly growing aspect of agriculture. The current state of its technical assistance however, is leaps and bounds behind, especially in comparison to its rural agriculture counterparts. While every of the US have land-grant universities and cooperative Extension offices, there is not a United States of Department of Agriculture's (USDA) Urban Service Center in every state (Find Cooperative Extension in Your State, n.d.) (United States Department of Agriculture, 2023). The USDA defers those not near an Urban Service Center to reach out their local Extension office for assistance (United States Department of Agriculture, 2023). Generally, urban farms turn to external organizations that specialize in urban agriculture for technical and financial support, such as assistance with purchasing land tenure, cultivating knowledge, permit application management, and business management (Kopiyawattage et al, 2019). Rural agriculturalists have niche and tailored support staff due to their individual operational set-up (i.e. livestock, crop, certifications, size, etc). Urban agriculturalists on the other hand get lumped together as one type of grower –an urban grower. Urban agriculturalists faced many and unique challenges themselves, from land use competition to soil contamination, to limitations to economic success due to scalability. The current resources lack a conceptual framework that addresses the types of urban agriculturalists, their operations, and the support they need. The goal is to understand the ecosystems –both ecological and anthropological – of urban agricultural operations preside in and creating a standing framework for the highly urbanized and rapidly growing region of the DC-Maryland-Virgina (DMV) region.

How it Works/Methodology/Program Phases/Steps

By blending the two novel concepts of the archetypes of farmers from Campbell et al. (2023) and the typologies of operations from Jansma et al. (2024), this research will use mixed methods exploratory approach to create a new educational framework. The approach of a smaller qualitative sample that creates the design methods for the larger quantitative sample is planned as follows: Phase 1- Preliminary formation with a small group experts (3-5) to aid in development of interview questions to conduct interviews with urban agriculturalists of a smaller sample size (15-30); Phase 2- Survey urban agriculturalists of a larger sample size (150-300); Phase 3- Data analysis; Phase 4- Educational material formation and suggestions. Phase 1's interviews are to confirm, deny, or expand from Campbell, et al. (2023)'s three found archetypes. The interviews will also explore needs, intents, and barriers of archetypes for Phase 4's educational materials and framework. Phase 2's surveys will explore operational models and typologies, looking at finances, business classification, staff dynamics, etc. to not only determine typologies but allow for archetype matching and general groupings to the educational framework in Phases 3 and 4. The goal of the educational framework is to allow urban agriculturalists and service providers, like Extension agents, to have a common language to speak from, and to direct assistance to catered resources based upon and urban agriculturalist's placed archetype and typology.

Figure 1

Proposed Educational Framework



Results to Date/Implications

This research is currently on-going, with an expected end date for Phase 1 by the end of early Fall, 2025. The overall work should be completed by Winter 2026. Preliminary results indicate a possible fourth archetype, or at least a subdivision of the "Visionary" archetype found by Campbell, et al. (2023) that encompasses the community and human impact of the urban agroecology. However, with the current literature review underway for this research exceeding forty articles, only one mentions categorizing urban farmers (i.e., Campbell et al. 2023). In retrospect, the primary topics of interest of urban agriculture research are common barriers and benefits of these operations and how to grow in urban settings.

Future Plans/Advice to Others

The main focus of this study is to determine the archetypes and typologies the DMV. Advice to others is replicating this study in different regions.gs compared to this study. Preliminary results already see a division between the types of urban agriculturalists compared to the urban environments of Oklahoma from Campbell et al. (2023) and the EU of Jansma et al. (2024). Additional advice to others would include ensuring means/funding to compensate as many participants as possible for their time. Not only are people (especially agriculturalists of any kind) are over surveyed, but many urban growers are also aiding their local food security needs for themselves, or others, and often facing other types of injustices in urban spaces (i.e. environmental justice effects, red-lining, etc), where any finical support could be of use.

Costs/Resources Needed

To implement this research, financial costs include potential participant reimbursements, researcher wages, and travel reimbursements. The University of Maryland offers students free access to NVivo (usually a $499 subscription for 50 hours of transcriptions). Phase 1 is conducted entirely online, avoiding travel costs, and there is no participation reimbursement. Phase 2 will utilize Qualtrics, another service provided for free by the University for students (normally a limited free version is offered, while complete access to the service is $420/month for 1,000 responses). Funding is attempted to be acquired for participation reimbursement, with a potential of $450 to raffle 3, $50 awards to each of the three regions of the study, totaling to 9 different raffle winners. Phase 3's data analysis will use R or SPSS, which are both open-source. Phase 4 will utilize open-source softwares like Microsoft Office, G Suite, and Canva to create educational materials.

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