STUDIES IN DENSER LIVING: Changing student insight and inciting change in student residential aspirations

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Abstract
Through their studies of denser living, can landscape architecture undergraduates experience not only a change of insight—a deepened appreciation of the design construct—but also an incitement to change their own residential preferences? The literature highlights changes in student values and opinions through education, and it has been suggested that specifically in architectural education, knowledge and values are acquired simultaneously as students adopt the values embodied by the professors and their pedagogy. Enriched educational experiences such as study abroad can be particularly effective in shaping student attitudes. In this study, two groups of landscape architecture students were surveyed on their understanding of basic terms and personal preferences related to residential compaction, the latter through “trade-off” scenarios that contrasted loss of personal spatial amenity with the benefits of compaction. The treatment group, who had studied and experienced denser housing during studio and study abroad, showed significantly greater levels of insight and preference for compact living than the control group yet to complete the same exercises. An inductive content analysis of interviews with the treatment group revealed that the majority were negative toward compaction prior to their studies, but highly supportive afterwards. The design studio and contact with the professor played a part in this shift in values, but it was the cultural immersion in dense communities, particularly overseas, that had the greatest resonance. Apart from the longer-term benefit of opening up the possibilities of compact living to these future housing consumers, the on-site experiences enriched these students’ design process with empathy, enthusiasm, and confidence that the concept was translatable into tangible, enjoyable places.

Research Context and Rationale
Inciting change in student values and attitudes through education
This article explores the effect of urban design experiences on the residential preferences of undergraduate landscape architecture students. Can educational experiences in and out of the studio affect the views of students in relation to their acceptance of denser living? Through their education do these students experience not only a change of insight—an appreciation of residential compaction as an academic and design construct—but also an incitement to change their own personal residential aspirations?

The literature suggests that attitudes and preferences can be molded by a range of educational settings, over and above the acquisition of academic knowledge. Studies report on the enhancement of school pupils’ civic values through private school curricula (Greene, Mellow, & Giammo, 1999); the morphing of university students’ political opinions to match their professors’ (Magee, 2009; Mariani & Hewitt, 2008; Zipp & Fenwick, 2006); and changes in high-school student political attitudes depending on the delivery style of social studies teachers and the presence of classroom debate (Ehman, 1980). It has been further suggested that, specifically in architectural education, the acquisition of skills and knowledge is in fact inseparable from the acquisition of values and attitudes (Stevens, 1995). In the studio, architectural students learn behaviors and dispositions from each other that are normative for the profession—the habitus (Stevens, 1995)—but they are most forcefully embodied in the architectural professor, who becomes a role model and figure of authority (Race & Brown, 2005; Stevens, 1995). The relationship between studio professor and student can be influential and emotional (Austerlitz, 2007; Austerlitz, Aravot, & Ben-Ze’ev, 2002; Wendler & Rogers, 1995), and some have even gone so far as to compare the dynamic with that of parent and child (Anthony, 1991, as cited in Stuart-Murray, 2009). The tastes, opinions, values, and attitudes of the architectural professor, as disseminated through lecture materials, guided readings, critiques, asides, and anecdotes, are therefore likely to be highly influential in the development
of the student. For example, as a graduate student of landscape architecture at the University of Sheffield in the UK, the author attended planting studios where recently hired instructors strongly advocated for low-maintenance, naturalistic perennial compositions in public places. This approach is now well established, but at the time, the so-called “Sheffield School” style was somewhat revolutionary and far removed from what most of the students understood as viable public planting. However, by providing a rationale for the approach and exposure to its aesthetic possibilities through design exercises and site visits, the professors seeded an appreciation and a shift in values within the students. Where the influence of professors, in and out of class, impinges on the sphere of students’ nascent political orientation, there has been understandable concern (Mariani & Hewitt, 2008; Zipp & Fenwick, 2006). This article is not intended to discuss the rights or wrongs of professorial influence, but to posit that the values or preferences passed on in landscape architectural education from professor to student can, as demonstrated in the Sheffield example above, be grounded in the impartial evidence of natural and social sciences, rather than simply a matter of connoisseurship, taste-making, or acolyte creation.

**Introducing denser living through educational exercises**

As part of a land grant university, studios in the Department of Landscape Architecture at the University of Arkansas strive to engage with local issues that have the potential to overlap with service and outreach. A current focus is planning and design to accommodate the burgeoning population of Northwest Arkansas. If this population increase is to be accommodated sustainably, the region will have to adopt greater residential density (City of Bentonville, 2004; City of Fayetteville, 2011; Dover Kohl & Partners & City of Fayetteville, 2004, 2006). The intertwined concepts of increased residential density, compact living, and efficient development provide the key pillar of the author’s urban design studio, Design VII, a mandatory part of the undergraduate professional curriculum. Among other tasks, the students are charged with creating a master plan for a speculative, relatively dense residential/mixed-use development on a local 70-acre suburban plot. In support of their design work the students attend lectures on the problems of typical American suburbs, such as resource inefficiency and auto-dependent placelessness, watch documentaries including James Howard Kunstler’s TED talk “The Ghastly Tragedy of the Suburbs” (2004) and Gary Hustwit’s Urbanized (2011), and are provided with a reading list that includes The Geography of Nowhere (1993), also by James Howard Kunstler, and Suburban Nation (2000) by Andres Duany, Plater-Zyberk, and Speck. The students are also exposed to the author’s own ongoing research on the acceptability of residential compaction to the general public. The studio visits and critiques the ongoing development of Duany Plater-Zyberk’s relatively dense, walkable “new urbanist” community in New Town, St. Charles, Missouri (Figure 1) and the historic Soulard and Lafayette Square neighborhoods of nearby St. Louis, where the dense urban form has accreted over more than 200 years (Figure 2). During the site visits, the students take measurements of critical dimensions such as road widths, block sizes, and set-backs, and photograph, draw, and make notes to capture their analytical and experiential responses.

Two months prior to the fall studio, the same group of students attends a 6-week summer study abroad tour that includes a wide range of European landscapes and settlements from antiquity to contemporary. This mandatory excursion includes visits to planned, dense neighborhoods at Poundbury “urban village” in Dorchester, England (Figure 3), and Greenwich Millennium Village in London (Figure 4).
These late 20th-century examples of dense residential/mixed-use development are complemented by visits to older European fabric including the Stockbridge Colonies, tightly packed workers’ cottages from the late 19th century in the north of Edinburgh (Figure 5); the narrow residential streets (vicolo, alleys) and civic spaces of Orvieto in Umbria, Italy, that date back to the 13th century and earlier (Figure 6); and the principally Medieval Roman neighborhood of Trastevere (Figure 7). Trastevere serves as “home base” during the Roman portion of the program, with the students living in neighborhood apartments for 12 nights.

In Europe the principal mode of student engagement is through an annotated sketchbook, with the emphasis on personal observation and cultural immersion. It has been suggested that students are more engaged during “enriched educational experiences” such as study abroad programs (Umbach & Wawrzynski, 2005), and time overseas can broaden students’ worldview and understanding of different cultural norms, particularly if the setting is very different from the students’ cultural point-of-origin (Douglas & Jones-Rikkers, 2001). The European sites were not selected for their residential compactness per se, but as part of a broader excursion objective of exposing students to overseas cultures made manifest in landscape and urban design. For most of the students, the dense, walkable fabrics of medieval Roman neighborhoods and British urban villages are indeed very different from the conventional, auto-dependent suburbs in which they were raised. The students typically originate from the type of sprawling residential environments that many American planners and politicians would like to see come to an end (Newman & Hogan, 1981; Talen, 2001).

Changing insight to incite change in residential aspirations

Despite dissenting voices from professionals concerned with the implications of sprawl, a single-family home on a large lot is consistently the preferred choice of the American housing consumer (Day, 2000; Myers & Gearin, 2001; Newman & Hogan, 1981; Talen, 2001). There are many reasons for this preference, such as associations with affluence; safety, privacy, and greenspace (see Day 2000; Jensen, 2004; Myers & Gearin, 2001; Talen, 2001). To incite change in the public perception of residential compaction and help ease denser, potentially contentious development through the planning process, more innovative developers are using exhibitions and charrettes to deepen community insight (Farr, 2008; Steuteville & Langdon, 2003). Together with experiencing exemplar compact development firsthand, such exercises can demonstrate to the public that good design, high quality of life, and increased residential density are not antithetical (Jensen, 2004). If developers are using residential compaction workshops, design exercises, and field visits to change community insight and incite change in opinion, it follows that the educational experiences of the Design VII studio and Study Abroad outlined above might provoke a similar shift in student attitudes. This article investigates whether the combination of studio design project, site visits, lectures, and overseas excursions changed the residential aspirations of students in addition to providing academic knowledge.

Research Methods

To examine the effect of Study Abroad/Design VII on insight and residential preference, two approaches were used: the check-box survey and the recorded semi-structured interview. For the survey, all 37 landscape architecture students enrolled in the department were evaluated on their insight into residential compaction,
specifically, their familiarity with the key concepts of “sprawl”—the spatial antithesis of residential compaction—and “smart growth”—a term for locating and programming development through environmentally and socially driven considerations (see Farr, 2008) (Table 1). The survey then posited questions related to trade-off scenarios that test respondents’ willingness to swap private spatial amenity for the benefits of compaction in their preferred place of residence (Table 2). In their own survey of perceptions of compact living, Lewis and Baldassare (2010) have shown that a richer understanding of opinions can be gained through positing trade-off scenarios compared with simply inquiring whether or not respondents hold a favorable view, as the manner of the questions more closely mimic how people make decisions in the real world.

To test for any significant difference in the percentage of students familiar with the key concepts of sprawl and smart-growth, a Fisher’s Exact Test of Independence was run to compare the 12 who had completed Design VII and Study Abroad and the 25 who hadn’t. This would provide a tentative indication of levels of insight in the 12 treatment students and the 25 control students. To then analyze the trade-off responses in the treatment and control groups, each respondent was assigned a score that tallied the number of times they selected the first, compaction-scenario response over the second, sprawl-scenario response or don’t know. Statistically significant difference between the two mean scores was then tested for through a t test. Finally, the survey asked the students to provide demographic information related to age, gender, level of education, and whether or not they had children.

Following the survey, the treatment group was invited to attend one-on-one, private, 30-minute interviews to further investigate and clarify their insight into
residential compaction and any role played by educational experiences in inciting change in residential preferences. Interviews were recorded with the students’ permission, transcribed using Sound Organizer software, and analyzed using an inductive content analysis technique to identify a hierarchy of common themes, subthemes, and linking themes (see Thomas, 2003). The students were emailed prior to the interview with notification of the time, date, and venue and the five primary questions around which the interviews would be structured (Table 3). Although the interview questions provided prompts for the conversation, there was flexibility to develop and clarify responses with follow-up questions. This adaptability is a distinct advantage of the interview over the questionnaire (Bell, 1993), particularly if it allows the interviewee to speak freely around a loose, semi-structure of themes or topics, ensuring that all issues are covered (Bell, 1993; Burgess, 1984; Oppenheim, 1992).

Results

Descriptive statistics of demographics

All 37 students enrolled in the department at the time of the survey completed and returned the questionnaire. Ideally, differences in demographic variables between the two groups would be accounted for statistically, reducing the influence of confounding variables. Unfortunately, this was not possible to achieve with such small samples. However, the demographic responses shown in Table 4 demonstrate the broadly similar make-up of the two groups.

Table 5 presents the descriptive statistics related to insight of residential compaction and efficiency. The treatment group was significantly more familiar with the term “sprawl” than the control group, with a Fisher’s Exact Test result of p = 0.0357. The percentage of those familiar with the term who also identified sprawl as a negative phenomenon was also significantly higher in the treatment group than the control group, with a test result of p = 3.722 x 10^-5. However, the percentage familiar with the term that also went on to identify smart growth as a positive construct was not significantly different between groups. This last result should be treated with some caution; only a small percentage of the students in the control group (28%) were familiar with the term “smart growth.” Tentatively, it would appear that the treatment group had greater insight into some of the basic concepts of residential compaction and efficiency.

Responses to trade-off scenarios relating to residential preferences

The responses from all the students to the seven trade-off scenarios showed a high level of internal consistency, with a Cronbach’s alpha value of α = 0.805 (N = 37). In other words, the trade-off questions related well together as a measure of the same construct—willingness to trade off private amenity for the benefits of residential compaction, and the questions provide a good level of internal reliability. Only 18 don’t knows were included in the 259 trade-off responses.

Each time a student selected the compaction scenario against a trade-off question they were awarded a point, with a maximum score of 7. Although the mean score in the treatment group was 5.83 (SD = 1.4), the mean score for the control group was just 3.97 (SD = 2.29). The difference in these mean scores was statistically significant, t(36) = 2.59, p ≤ 0.01. This significantly higher mean response in the treatment group could suggest that the 12 students who had undertaken the Study Abroad/Design VII exercises were more accepting of the idea of compact living than the 25 who had not. In order to clarify the residential preferences of the treatment group further, as well as better describe their levels of insight into the construct of residential compaction and efficiency, the outcomes of the inductive content analysis of semi-structured interview transcriptions are described below.
Would you choose to live where countryside is preserved in the region, even if it means living in a small home with a small backyard, or would you choose to live in a large home with a large backyard, even if it means regional countryside could be used for expanding development?
- Preserved countryside, small home and small yard
- Possible development in countryside, large home and large yard
- Don’t know

Would you choose to live where there are communal greenspaces — such as parks — in your neighborhood, even if it means living in a small home with a small backyard, or would you choose to live in a large home with a large backyard, even if it means there are no communal greenspaces — such as parks — in your neighborhood?
- Communal greenspaces, small home and small yard
- No communal greenspaces, large home and large yard
- Don’t know

Would you choose to live where there is walkable access to regional transit — such as bus or light rail, even if it means having just one or two parking spaces on or around your property, or would you choose to live where there are more than two parking spaces on or around your property, even if it means there is no walkable access to regional transit?
- Walking access to transit, one or two parking spaces
- No walking access to transit, more than two parking spaces
- Don’t know

Would you choose to live where there is walkable access to local services — such as social and civic amenities, even if it means having just one or two parking spaces for you on or around your property, or would you rather choose to live where there are more than two parking spaces for your home, even if it means there is not walkable access to local services — such as social and civic amenities?
- Walking access to services, one or two parking spaces
- No walking access to services, more than two parking spaces
- Don’t know

Would you choose to live in a high-density neighborhood, if it means you have a short commute to work, or would you choose to live in a low-density neighborhood, even if it means you would have a long commute to work?
- High-density neighborhood with a short commute
- Low-density neighborhood with a long commute
- Don’t know

Would you choose to live in a high-density neighborhood where you can walk to stores, schools, and services, or would you choose to live in a low-density neighborhood where you have to drive a car to stores, schools, and services?
- High-density neighborhood, walk to amenities
- Low-density neighborhood, drive to amenities
- Don’t know

Would you choose to live in a high-density neighborhood where it was convenient to use public transit when you travel locally, or would you choose to live in a low-density neighborhood where you would have to drive your car when you travel locally?
- High-density neighborhood, use public transit
- Low-density neighborhood, drive a car
- Don’t know

| Table 2. Check-box survey questions and response options related to residential trade-off scenarios |
What do you feel are the key benefits of more compact living in denser housing?
What do you feel are the key drawbacks of more compact living in denser housing?
Can you recall your attitude towards compact living in denser housing before our studies in Europe and in the Design VII studio?
If any, in what ways did our studies in Europe and in the Design VII studio change or impact on your attitude towards compact living in denser housing?
If any, what would you say were the most important aspect or aspects of your studies in terms of influencing your attitude towards compact living in denser housing?

Table 3. Primary questions forming the basis of the semi-structured interviews.

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Age</th>
<th>Gender</th>
<th>Ethnicity</th>
<th>Education level</th>
<th>Children</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>18-24</td>
<td>M</td>
<td>F</td>
<td>Cauc’</td>
<td>Hisp’</td>
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<tr>
<td>% of Treatment group (n = 12)</td>
<td>92</td>
<td>8</td>
<td>33</td>
<td>67</td>
<td>92</td>
</tr>
<tr>
<td>% of Control group (n = 25)</td>
<td>92</td>
<td>8</td>
<td>52</td>
<td>48</td>
<td>80</td>
</tr>
</tbody>
</table>

Table 4. Demographic information.

| Survey responses                                      | Have you heard of sprawl? | If yes: do you have a favorable or unfavorable opinion of [sprawl]? | Have you heard of smart growth? | If yes: do you have a favorable or unfavorable opinion of [smart growth]?
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<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Favorable</td>
<td>Unfavorable</td>
</tr>
<tr>
<td>% of Treatment group (n= 12)</td>
<td>100</td>
<td>0</td>
<td>8</td>
<td>92</td>
</tr>
<tr>
<td>% of Control group (n = 25, 17, 25, 7)</td>
<td>68</td>
<td>32</td>
<td>47</td>
<td>53</td>
</tr>
</tbody>
</table>

Table 5. Survey responses related to insight of residential compaction.
**Inductive content analysis of semi-structured interview transcriptions**

Of the 12 members of the treatment group invited to interview, 11 agreed. The following tables (Tables 6, 7, 8, 9, 10) summarize the emerging themes, subthemes and linking themes that were found through an inductive content analysis of the transcriptions, and include illustrative quotations. Ad hoc questions used to follow up primary questions are not listed.

**Discussion**

During the interviews, the majority of the treatment group recalled having negative feelings toward compact living before their studies in the United States and overseas. Prior to the Study Abroad and Design VII, they had felt that density was antithetical to their long-term residential aspirations and the values that had been instilled in them growing up. At the same time, the majority admitted to having little or no firsthand experience that informed their opinion. Only 2 of the 11 remembered having any prior enthusiasm for compact living—and in both cases they had extrapolated this from experiences of walkable, convenient off-campus apartments—though their positivity was tempered by concern that it would represent a compromised existence post-graduation. Although the experience of living in a student village or a rented student home of multiple occupancy is unlikely to provide a full understanding of the possibilities of compact living—and thus perhaps the two students’ initial feelings that compaction is best suited for younger, low-income individuals—it did provide a spark of appreciation and hinted at how important lived experience is to the formation of attitudes towards residential density. It may

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<table>
<thead>
<tr>
<th>Key emergent themes and subthemes</th>
<th>• Access to amenities such as food and greenspace.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>- Convenience of proximity.</td>
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<tr>
<td></td>
<td>- Reduced car use.</td>
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<tr>
<td>• Sense of community.</td>
<td>• Residents’ physical and mental well-being.</td>
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<td></td>
<td>- Encourages exercise through walking.</td>
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<tr>
<td></td>
<td>- Sense of safety through informal surveillance and chance encounters.</td>
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<tr>
<td></td>
<td>- Increased vitality of streets and lived experience.</td>
</tr>
</tbody>
</table>

**Quotations:**

- *I think mainly the interaction you have with your neighbors, rather than being secluded on your own plot of land. Getting to know the people around your unit and those passive interactions that you have.*

- *I think the key benefits are just being able to walk to places, being able to walk to the grocery store, being able to get to a park. I remember living in the suburbs as a little kid, and it felt isolated. I think the key benefit of compact living is that you can go other places and see other things.*

- *Health of the people that are living there, they are able to walk to their needs more easily. Mental health as well. Just being around other people makes me happy, personally, rather than feel alienated from people. Health and safety - having people that you know around you, you feel safer - I know them so I feel safe because they will keep an eye on me.*

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Table 6. Content analysis of response to “What do you feel are the key benefits of more compact living in denser housing?”
have been equivocal, but these two students were relatively positive compared with their inexperienced classmates. Furthermore, a few students recalled a nascent intellectual understanding of compact living prior to the classes in question, but at that time, they were not enthusiastic about living there themselves, having never previously experienced it firsthand. Clearly, for these students, the validity of compact living as a residential option required something more than just an abstract appreciation.

Having been introduced to residential compaction and efficiency as an academic and design construct and experienced firsthand through site visits, the treatment group, unsurprisingly, appeared to have more insight than the control group, or at least they were more familiar with some basic terminology. However, the interview responses provided evidence that the treatment group had in fact developed quite a sophisticated level of understanding and insight. When discussing the key drawbacks of residential compaction, the students touched upon issues shown to be of concern to those living in dense neighborhoods, such as lack of yard space and privacy and limited lifestyle choices (see Day, 2000, and Williams, Burton, & Jenks, 2000).

Although these concerns were introduced during the Design VII studio, the transcriptions suggested a deep insight and empathy, rather than by-rote responses, touching on broader ruminations on American culture and their own residential aspirations growing up. Furthermore, their responses drew on observations and critiques of what they had seen on the ground, most especially concerns regarding the translation of European typologies into American development. Similarly the

| Emergent themes and subthemes | • Lack of privacy. |
|                              | - Impact of neighbors on your privacy (views and noise). |
|                              | - Impact of your lifestyle on your neighbors. |
|                              | - Conflict between neighbors. |
|                              | • Lack of outdoor space to call your own. |
|                              | • Limitations on lifestyle choices. |
|                              | - Restricts car ownership through lack of parking. |
|                              | - Lack of choice in walkable amenities. |

| Emergent linking themes and subthemes | • Residential compaction is ‘un-American’. |
|                                        | - Size of private land equates to success. |
|                                        | - Space to keep and display material possessions. |
|                                        | - Space to get away from neighbors. |

Quotations:
- "In America, people want their own piece of land, and with more compact living you’re not going to get that big piece of land that people have dreamed of. You’re not using your money to display your land. I’ve lived in different situations and with more space comes more privacy for me; I don’t have to worry about what I do impacting on my neighbors."
- "If it’s a situation like in Rome where it is very compact, you maybe won’t be able to have a car, and in Greenwich Millennium Village there is not really enough amenities close by… limiting lifestyle choices, but it depends on where the compactness is located."
- "[That loss of] personal space. In America that personal bubble is quite large. I know everybody really likes to have their things and having enough space to put their stuff."
- "[Lack of] private outdoor space. I know a lot of the areas we looked at [in Europe] didn’t have it but maybe in America that doesn’t necessarily translate."
- "Everyone is so dependent on cars, so the potential lack of parking, and what other people might see as lack of parking and lack of yard, and a smaller yard, because it takes away from the American Dream."

Table 7. Content analysis of response to “What do you feel are the key drawbacks of more compact living in denser housing?”
### Emergent themes and sub-themes

- **Uninformed aversion.**
  - Negative views but have never lived in a denser environment.
  - Inherited negative views from family who have never lived in denser environment.
- **Aspirations away from density.**
  - Associations of lower density with success.
  - Associations of higher density with low socio-economic status.
  - Meeting family expectations.
- **Ambivalence towards density.**
  - Recognized theoretical benefits.
  - No desire to live there themselves.
- **Prior tentative enthusiasm or acceptance.**
  - Informed by college life in off-campus apartments.
  - Doubts as to suitability post-college.

### Emergent linking themes and subthemes

- **The impact of lived experience.**
  - College experience can trigger independence from family attitudes.
  - Importance of personal experiences over theoretical understanding.

### Quotations:

- "I would have said that I would never want to live in a denser environment, just because I had never lived that way before. And I still see that in my family’s reaction to it... they don’t want to live close to people. So that’s what I would have thought too."

- "I was comfortable with the idea of high density housing, but I wasn’t completely sold on the idea of living there myself. I understood the benefit, but as a person..."

- "I was really for the idea that, when I grew up, I really wanted my own piece of land, that my parents would be proud of me, and that’s what I thought was the American Dream. I’ve always seen growing up, that if I was successful in life then where I would live would have rolling hills or a meadow."

- "I grew up in a suburb but I already was really into compact living, just because I went looking for my own apartment and found one in a fairly dense neighborhood. I felt like maybe it can be uncomfortable though, like if I didn’t have the yard and space for the car and everything."

- "I wasn’t sure without the experience. I would see [density] in a map or in a photograph and learned that these people lived in a much denser way than how I live. So I was kind of wary, because I didn’t know how pleasant it would be."

- "Moving to Fayetteville and living in an apartment was a complete radical shift in how I saw housing. Not everyone has to live in a single family home on an acre of land. That was just how I was bred for 18 years until I moved. When I leave school I won’t be able to afford the kind of housing that I would like to live in and so I feel I might be forced to live in a higher density area."

- "I think it was easier for me to assess those things remotely “well yes this might be good from a pragmatic standpoint,” but would I want to live there... maybe not. [When] I saw something like that I thought it may be reserved for the lower income people."

Table 8. Content analysis of response to “Can you recall your attitude towards compact living in denser housing before our studies in Europe and in the Design VII studio?”
### Emergent themes and sub-themes

- Recognition of a possible home environment for themselves.
  - Offers a viable alternative to typical suburbia.
  - Could provide a place to live in which they can be proud, safe and comfortable.
  - Walkable and convenient.
  - Could integrate them with a community.

- Reaffirmation of prior interest in density.
  - Design studio and precedent studies showed theoretical possibilities of density.
  - Site visits demonstrated that theory can deliver quality in practice for a range of occupants.

### Emergent linking themes and sub-themes

- Recognition that density needs to be experienced to be appreciated.
  - Recollections of dense places experienced in Europe.
  - Idea that density needs to be experienced by the American public to overturn skepticism.

### Quotations:

- It made me realize that isolating yourself and being spread out is actually not a good thing. You get your own space but then you’re not interacting with other people; you’re not engaged in the world.

- I still like that idea of low density living, but now it’s where that isn’t all... now there are more possibilities because now I see the benefits of denser communities. You can create a place that would be comfortable for me, and that I would still be proud of, and that would be more convenient.

- I definitely started to see it in a more positive light and something that people could really like if they were given a chance to really experience it. Before I imagined myself living more in like suburbs, that kind of area, but I could see myself living in a more dense area.

- I found it was much pleasant than I thought it was going to be. It is possible to create dense places and it still be comfortable. Before I wasn’t sure these are places I would want to live, but seeing how it worked and meeting people that lived in it, I would definitely live in it now.

- It basically opened my eyes. I’m from a small town where everybody loves their yard but I don’t know my neighbors, so I thought the colony flats in Scotland were really cool. It caused you to communicate with your neighbors because you were living in such close quarters and form this connection. It’s not just a silly thing - which I thought it was before. I’ve tried to explain it to my parents but I think actually having visualized it and experiencing it is important.

- After experiencing this and going through the studio, my perception of denser communities really changed. I loved being in these dense communities. There were always things to do, and see. So I felt that I could really see myself living there. But it would take time to thrive [in the US]. You’d have to get people out there and recognize what it is.

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**Table 9.** Content analysis of response to “In what ways if any, did our studies in Europe and in the Design VII studio change or impact on your attitude towards compact living in denser housing?”
Table 10. Content analysis of response to “What, if any, would you say were the most important aspect or aspects of your studies in terms of influencing your attitude towards compact living in denser housing?”

<table>
<thead>
<tr>
<th>Emergent themes and sub-themes</th>
<th>Experiencing compact living firsthand.</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Living in Trastevere, Rome, for 12 days provided time to observe and immerse within compact living.</td>
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<tr>
<td>-</td>
<td>Meeting and interacting with residents of denser neighborhoods.</td>
</tr>
<tr>
<td>-</td>
<td>Authentic places generally preferred to planned places.</td>
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<td>Demonstrated compact living can translate to American lifestyles.</td>
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<td>-</td>
<td>Timing prior to studio design exercise was important.</td>
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<td>-</td>
<td>Studio design exercises reinforced compact living as a viable alternative.</td>
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<td>-</td>
<td>Readings, precedents and background information reinforced suitability as an American model.</td>
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<td>-</td>
<td>Reinforced the benefits to residents – drawing on personal experiences of compact living to inform design process and enrich empathy for hypothetical end-users of designs.</td>
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| Emergent linking themes and subthemes | Personal experiences are fundamental to changing attitudes and aspirations relating to compact living, and enrich the academic study of this development pattern. |

Quotations:

- "The thing that had the most impact was living in Rome. That’s not to say that going to the towns in England and Scotland didn’t have an effect, but we didn’t get to stay there for very long, whereas in Rome we were there for a week and a half, so it was long enough to get a feel for it. And I would say that designing a place; that really reiterates a lot of important things. I think that it challenged me as an American who has grown up living in a certain way and I saw that it’s not just a European thing.

- "Probably the free time in Rome, and being able to wander around and see what I could see. I think that density can be a hard concept to grasp if you’ve not really experienced it before, but prior to going to Europe, I didn’t really have any experiences to draw from. But then actually being able to do a design helped solidify the idea that it could work, even in Fayetteville, Arkansas. But I think probably the experience had a lot more impact because I was there and I was living it for two weeks, and it made me see that, yes I could like this - this is great.

- "I guess the most impactful things were maybe seeing other people obviously living very rich lives. New Town was initially positive, but it’s kind of scary because there are no people there. And then you see these organically formed places and it’s obvious that they’re functioning and you see some of the things that New Town doesn’t have. There are layers that are missing at New Town, complexities that Trastevere has. Extra textures. Without seeing density for real, I think my doubts would not have been answered… I feel like I got the experience of whether or not it works.

- "I think that taking us to those places and letting us experience them for ourselves, rather than just telling us these are the principles. I really enjoyed Stockbridge flats in Scotland a lot. I liked Poundbury - I remember that pretty well. I think Greenwich Millennium Village - that was alright, but I wish we’d seen more people using it because it was in the middle of the day, and people were at work, but being able to see it in use would have been totally different. We got to talk to a couple of people in Stockbridge, and ask them about their space. Poundbury we had a tour guide, so we had a more insider to feel of it, but Greenwich, we didn’t really have that. And at Poundbury we saw people walking around. It made it more human. Not just a project, but that life was actually going on there. The class helped me to learn the principles and understand better what I had been seeing and create a better design, but before going the site visits I wasn’t sure these places I would want to live, but seeing how it worked and meeting people that lived in it, I would definitely live in it now."
students’ views on the benefits of compact living also drew on personal reflection, taking in comparisons with the suburban environments where they had grown up and thoughts on their own future residential lifestyle. Interestingly, the group tended to focus on benefits related to physical and mental well-being, such as connectedness of communities and walkability, rather than more obviously environmental benefits such as the preservation of land and resources, even though these benefits were granted similar weight in the studio. Given their emphasis it is unsurprising, compared with the control group, that the treatment group was significantly more supportive of compact living in the trade-off section of the survey; five of the seven scenarios related to the walkability and access benefits that appear to have resonated with them strongly.

When comparing the treatment group’s attitudes before and after their urban design studies, it seems clear that they were incited to change their views about where they might wish to live in the future. The two students who had lived in denser off-campus accommodation such as student apartments had their appreciation for a compact lifestyle broadened; it was no longer simply an option for college students but an environment offering convenience and a sense of community across demographics. The majority of the other, inexperienced, students echoed this acquisition of appreciation for walkability and convenience, and spoke positively about the possibilities of finding comfort and a sense of community in denser environments. Some had even become advocates trying to persuade their families of the benefits of compact living, and expressed some frustration that more Americans have not experienced walkable, denser neighborhoods.

This brings the discussion to a crucial point: It was the experience of visiting, walking, and especially living in denser environments that chiefly precipitated the students’ shift in attitude. The 12 days of living in Trastevere, Rome, where the students were imbedded within a vibrant, dense neighborhood, had an especially profound effect on their residential aspirations. This reiterates previous work pointing to the important influence that visiting overseas cultures can have in the forming of student views and attitudes. Other, shorter, European site visits—Stockbridge Colonies and Poundbury Urban Village—were also influential. Although brief, these excursions exposed the students to life being lived and communities thriving in denser environments. The visit to Greenwich Millennium Village in London, and then subsequently to the New Town in Missouri as part of the Design VII studio, had less effect, however. Both these visits took place at times when the students were unable to observe the residents and the perceived artificiality, and the geographic isolation of New Town seems to have been particularly off-putting.

On the other hand, the students appeared to respond well to a sense of authenticity in neighborhoods, and in this regard, the excursions to older parts of St. Louis during the Design VII studio contributed to their positive experiential immersion and also helped transpose the idea of compact living to an American context. This effect was reinforced by the studio’s design project, background readings, films, and lectures, all of which made the case for denser living in the United States. However, it seemed important to the students that this rather more academic focus on compaction followed on from the experiential exposure to dense neighborhoods. This sequence allowed them to experience and engage with density largely unfettered by the need to be highly analytical and cognizant of the “rules” of good urbanism; it was only by the time the group visited New Town and St. Louis that their observations had to be framed by studio-related readings and lectures on the theory and best practice of denser neighborhood design and planning.

Their initial immersion, especially in Europe, allowed the students to develop a well of experiences that could be subsequently drawn upon in the studio project, enriching their design proposals through a sense of empathy and their own aspirations, rather than mechanically aping precedent studies or looking to embody theory and best practice. The students attested to the importance of the studio and classroom-bound part of the curriculum, but expressed that it was only in combination with their lived experiences in dense neighborhoods that their studio and class time attained the most value.

**Conclusion**

This small study cannot be extrapolated to make a general case, but it does suggest that landscape architecture undergraduates’ educational experiences not only can provide insight into residential compaction, but also can incite a change in their residential preferences and attitudes. Arguably, the first order of a professor’s business is to provide insight that can then be applied as required through the remaining curriculum and post-graduation. It was therefore reassuring that the Design VII /Study Abroad students were relatively familiar with key, basic concepts related to residential compaction and efficiency, and during their interviews, demonstrated a very real and thoughtful level of insight. Nevertheless, the same students’ incitement to change their residential aspirations towards compaction was marked and noteworthy. The design studio’s content both reflected the professor’s values and though not explicitly intended, played a part in shaping the students’ values by providing a substantive underpinning to the positive experiential immersion in compact neighborhoods.

At the same time, this immersion provided the interest, curiosity, and emotional investment to enrich the students’ time in the studio during discussions,
readings, and lectures, and fired their empathy through the design process as they master planned their own dense development. The traditional architectural studio components of study and the cultural immersion were therefore synergistic in developing the students’ knowledge and design skills, changing insight and affecting a shift in their values and aspirations—inciting change. However, in isolation, it was undoubtedly the immersion in compact communities that had the greatest effect on the personal aspirations of these students: their interaction with people living in these places, a burgeoning appreciation for the design quality and comfort that can be achieved with density, and the simple pleasures and conveniences of walking.

This study reiterates the importance of overseas travel in the shaping of students’ personal attitudes, but there could be a danger in drawing too much from enthusiasm for time spent in exotic locations such as Rome, Edinburgh, and London. However, the American site visits were also valuable, not only for their own experiential qualities but also in adding credence to the lecture and reading material in transposing higher residential density to an American context. The students’ responses frequently and explicitly suggested that their views were pragmatic and grounded in a sense that compact living is a viable option for them and for other Americans.

Regarding further research, longitudinal studies could evaluate the trajectory of the students’ shift in opinion, and whether changing lifestyle and life-stage variables post-graduation further affect their residential preferences. It would also be instructive to evaluate the relative effect on student knowledge and values when compact living is introduced in a purely class-bound approach and is not enriched through immersive experiences. On the other hand, what would be the effect of educational experiences that provided cultural immersion outside the frame of a design degree? Do students from other fields who visit denser communities without a parallel or subsequent academic framing through a design studio, also experience changes in their residential preferences?

References


About the Author
Dr. Carl Smith is a Chartered Landscape Architect and Associate Professor of Landscape Architecture at the University of Arkansas, Fayetteville. He has degrees in Environmental Science, Landscape Architecture and Urban Design and a PhD researching sustainable landscape design. His primary research focuses on the implementation of sustainability, with a particular focus on housing development. Carl has been published in a number of international journals and periodicals, and is the first author of ‘Sustainable Residential Landscapes: A Checklist Tool’ (Wiley-Blackwell, 2007). He has delivered lectures on sustainable housing issues in Europe, South America and the USA.