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| C:\Users\bjaco\AppData\Local\Microsoft\Windows\INetCache\Content.Word\SLS-Teaching-Toolkit-Logo_Stacked-Initials.jpg | Fundamentals of Equity in the Sustainable Built Environment |
| **Discipline:** All | **Type:**  Discussion; Writing assignment | **Time Commitment:** 1-2 class periods | **Category:** Equitable Development |
| **OVERVIEW:**This tool introduces students to the different ways in which equity can be deeply embedded in the design of the built environment, in different phases from beginning to end. It encourages students to consider equity more comprehensively as a foundational component of sustainability. This tool is grounded in the following three key documents: [Inclusion by Design (Commission for Architecture and the Built Environment [CABE])](https://www.designcouncil.org.uk/sites/default/files/asset/document/inclusion-by-design.pdf), [Getting Beyond Green Report (National Association for the Advancement of Colored People [NAACP])](https://mcgrawimages.buildingmedia.com/CE/CE_images/2020/oct/CESBS_Equity_Baseline_for_Building_Standards_July_2019.pdf), and the [SLS Teaching Tool: Introduction to Equitable and Sustainable Development](https://serve-learn-sustain.gatech.edu/introduction-equitable-and-sustainable-development). Each key document was analyzed for its main concepts, which were then used to develop a higher-level framework for defining the fundamentals of what equity means in the sustainable built environment. Each fundamental is followed by a few examples that embody these concepts. This tool was contributed to by Jazmin Lucio (she/her), Hudson McGaughey (he/him), and Katie Popp (she/her).  |
| **INSTRUCTIONS:** This tool includes a pre-class reading, pre-class reflection, in-class discussion, and a take-home reading and writing assignment. See below for detailed instructions. |
| **SLS STUDENT LEARNING OUTCOMES & ASSESSMENT:**The Serve-Learn-Sustain toolkit teaching tools are designed to help students achieve not only SLS student learning outcomes (SLOs), but to also enhance the learning outcomes for your own courses. Reflection, concept maps, rubrics, and other assessment methods are shown to improve student learning. For resources on how to assess your students’ work, please review our Assessment Tools at <http://serve-learn-sustain.gatech.edu/tool-category/assessment>. **This tool achieves SLOs 1, 2, 3, and 4. See the end of this tool for further details.** |

**Want Help?**

Jennifer Hirsch is the contact for this tool. You can reach her at jennifer.hirsch@gatech.edu

Fundamentals of Equity in the Sustainable Built Environment

**Instructions**

*In preparation for class:*

1. Ask students to read the Overview: Three Key Documents below and also briefly review the documents themselves (hyperlinked in Overview).
2. Instruct students to write a short reflection on the Overview and documents, answering some or all of the following questions (instruct them which ones to answer; ask them to answer all of them; or allow them to choose):
	1. From the Overview/documents - Describe something that feels important but expected about equity.
	2. From the Overview/documents - Describe something that surprises you and makes you think in new ways about equity.
	3. From the Overview/documents or your own experience or knowledge - Can you think of any notable examples of equitable design you have seen in person? If not, what is an example in the documents that you like? Why is it your favorite? What is equitable about it? Are there any examples of inequitable design that come to mind?
	4. What key words/phrases would you use to describe equity? Please list 3-5.

*During class:*

*There are two possibilities here depending on how much time your class plans to spend on the activity. The first option is designed to last one class period, while the second is designed to last for two.*

1. Option one: one class period
	1. Spend 10 minutes discussing students’ reflections.
		1. Suggestion 1: Have the students submit their reflections via a shared platform. Ask them to read 1-2 of each others’ ahead of class. And/or pull a couple of excerpts to discuss together.
		2. Suggestion 2: Another possibility is to have them create a word cloud together, using a website such as [Mentimeter](https://www.mentimeter.com/features/word-cloud). This way, they can all interact with it together and see how much overlap there is between words they associate with equity. Discuss the most prevalent words.
	2. Read through and discuss Explanations for the Equity Fundamentals (Table 4).
		1. Suggestion 1: Use Examples of the Equity Fundamentals (Table 5) throughout the discussion.
		2. Suggestion 2: Use the following questions to guide the discussion: 1) How does this framework compare to the previous key concepts? 2) How is the language different? 3) Is there something you feel should be more strongly emphasized as a key component of equity? 4) From a design perspective, are these fundamentals realistic or will implementing them be limited to groups with more resources? 5) How else are these fundamentals limited?
	3. Spend the last 10-15 minutes of class having students reflect on equity in the sustainable built environment
		1. Suggestion: Discussion can be done as a whole class, or students can be split into small groups of 3-4. If using small groups, have students discuss in their group for 10 minutes and then bring the class back together to share reflections with everyone. Some potential ideas to guide the discussion: 1) have students think of an example of inequitable design, and then come up with ways to fix it; 2) have the students put in their own words why equity is so fundamental to sustainability; 3) has their viewpoint on what exactly sustainability is changed?
2. Option two: two class periods (assuming 50-min. class periods)

Day One:

* 1. Spend 10-15 minutes discussing students’ reflections.
		1. Suggestion: Have the students submit their reflections via a shared platform. Ask them to read 1-2 of each other’s ahead of class and/or pull a couple of excerpts to discuss together. Make sure that you, as the discussion lead, identify a few key themes that you can share if needed to get discussion going.
	2. Have the students review the [NAACP Getting Beyond Green Report](https://mcgrawimages.buildingmedia.com/CE/CE_images/2020/oct/CESBS_Equity_Baseline_for_Building_Standards_July_2019.pdf) for 10-15 minutes
		1. Suggestion: Let the students choose 3 examples from the Green Building Programs & Equity Approaches section to read through entirely
	3. Spend 5-10 minutes having the students study the Fundamentals Table
		1. Suggestion: Instruct them to consider if each of the fundamentals was present in the approaches they read about and, if so, how the fundamental was incorporated.
	4. Discuss the fundamentals and how they related to their reading from the [NAACP report](https://mcgrawimages.buildingmedia.com/CE/CE_images/2020/oct/CESBS_Equity_Baseline_for_Building_Standards_July_2019.pdf)
		1. Suggestion 1: Use Examples of the Equity Fundamentals (Table 5) throughout the discussion.
		2. Suggestion 2: Use the following questions to guide the discussion: 1) How does this framework compare to the previous key concepts? 2) How is the language different? 3) Is there something you feel should be more strongly emphasized as a key component of equity? 4) Which of the fundamentals seems most prevalent in real world design based on your reading of the NAACP report? Why do you think this is the case? 5) From a design perspective, are these fundamentals realistic or will implementing them be limited to groups with more resources? 6) How else are these fundamentals limited?

Day Two:

1. Spend 5-10 minutes reviewing and reflecting on the Equity Fundamentals and what was discussed yesterday
2. Select one example from Table 5 for each fundamental and have the students review them.
3. Discuss the examples for 15-20 minutes
	1. Suggestion: Use the following questions to guide the discussion: 1) How was each example relevant to the associated fundamental? 2) Do you notice any other fundamentals that may be present in this example of equitable and sustainable design? 3) How do you think different fundamentals can be combined? Are any of them particularly compatible? 4) From the examples we have read (including the NAACP report and its types of sustainable development), which do you think best centers equity and why? 5) Does this change how you view your surroundings? Are there any specific fundamentals or examples of them in action that you think are relevant to a specific system/structure you interact with?
4. Reflect on the key documents, the fundamentals, and everything else that was discussed for the rest of the class
	1. Suggestion 1: One way to do this is to have students first split into groups of 3-4 and discuss, then come back together as a whole class to share what came up. Are there any ideas that were consistent across many groups?
	2. Suggestion 2: Ask the students in particular to think about specific actions that can be taken on to design equitably. Are there any fundamentals that are key to think about from the earliest stages of design? How can they be considered through the whole process? How can they evaluate equity and sustainability?

*After class:*

1. Students should return to their original reflection, and add anything they learned or change anything they have a better understanding of.
	1. How would you answer the first reflection question differently now? If your responses have changed, please explain why.
	2. Are there any ideas in equity that surprised you/had not come to mind before?
	3. How do each of the key documents and their ideas relate to the discussion of the fundamentals and their examples?

**Overview: Three Key Documents**

The fundamentals of equity in sustainable development, as outlined in this teaching tool, are primarily founded in the following three key documents: [Inclusion by Design (Commission for Architecture and the Built Environment [CABE])](https://www.designcouncil.org.uk/sites/default/files/asset/document/inclusion-by-design.pdf), [Getting Beyond Green Report (National Association for the Advancement of Colored People [NAACP])](https://mcgrawimages.buildingmedia.com/CE/CE_images/2020/oct/CESBS_Equity_Baseline_for_Building_Standards_July_2019.pdf), and the [SLS Teaching Tool: Introduction to Equitable and Sustainable Development](https://serve-learn-sustain.gatech.edu/introduction-equitable-and-sustainable-development). Each key document was analyzed for its main concepts then these concepts were used to develop a higher-level framework for defining the fundamentals of what true equity looks like in sustainable development. Each fundamental is followed by a few examples that embody these concepts.

The following three sections identify the main concepts from each of the three key documents.

1. ***CABE’s Inclusion by Design***

Key Concepts: **Access with dignity, Treatment with respect, and Relevant services**

*Access with dignity:* Getting to, and into places, and using them. It is about physical access to places and services, including access to appropriate technology

*Treatment with respect:* How people are dealt with, talked to and looked after; whether their needs are considered and whether they are respected and welcomed

*Relevant services:* Do places meet people’s particular needs? Are they designed with users in mind? Do they give people a sense that they have a right to be there?

1. **NAACP’s Getting Beyond Green Report**

 Key Concepts: **Universal access, Inclusion, Health promotion for at-risk groups, Fair treatment of workers, Equitable emergency response, and Define and track equity**

*Universal access:* Includes affordability, public access to benefits from the building, implementation of additional community benefits, and universal design

*Inclusion:* Engagement and partnership with surrounding communities in decision-making and investments related to the project

*Health promotion for at-risk groups:* Engage public health partners and community, conduct a health impact assessment

*Fair treatment of workers:* Pay livable wages, health and safety measures, fair working conditions, basic human rights and fair labor practices for workers throughout the material/product supply chain

*Equitable emergency response:* Emergency management plan, physically accessible means of escape in case of emergency, design to reduce impact of natural hazards and climate change impacts, provide fundamental first aid, safe water, food, sanitation, back-up power, etc. for occupants and neighbors

*Define and track equity***:** When the design refers to something as equitable, what's their definition? Programs are encouraged to be as concrete as possible in specifying steps for equity assessments, meaningful engagement of frontline communities, prioritization of issues, and implementation of strategies. It cannot be assumed that mainstream green building practitioners have a proficient understanding of equity that can be readily translated into the design of processes, partnerships, and places.

1. **SLS Teaching Tool: Introduction to Equitable and Sustainable Development**

Key Concepts: **Infrastructure serves multiple purposes, Development decisions impact both human and non-human life, Values influence development decisions, Infrastructure development impacts different communities in different ways, and Your voice is a powerful and necessary tool in assuring that large development projects benefit existing communities and benefit nature**

*Infrastructure serves multiple purposes:* Sometimes we look at a major infrastructure project and focus on one of its functions, but good infrastructure can serve several functions. The BeltLine provides a transportation corridor for transit, walking, and biking, while it also mitigates flooding, creates business opportunities, restores greenspace, and showcases artists

*Development decisions impact both human and non-human life:* Humans are just one piece of a complex and dynamic system. Therefore, our decisions need to take all forms of life into consideration. For example, the City of Seattle requires a proportion of new development to include vegetation, which offsets a portion of habitat loss attributed to development.

 *Values influence development decisions:* Individuals and communities (professional, geographical, cultural, socioeconomic) bring their values and beliefs to every decision, whether they mean to or not. These values impact infrastructure development. For instance, a city may transform a vacant lot into a community garden, but if neighborhood residents do not value farming or lack proper guidance, then the garden may fall into disrepair.

*Infrastructure development impacts different communities in different ways:* Because infrastructure projects have multiple uses and multiple effects, we must consider why each project is being built, and whom it serves. Development outcomes have different impacts on different groups, and what may be useful to one group may be neutral or even harmful to another. For example, the Old Fourth Ward Skate Park serves as a social and recreational space for youth, but some nearby homeowners view it as a nuisance because it brings noise

*Your voice is a powerful and necessary tool in assuring that large development projects benefit existing communities and benefit nature:* Government and business entities almost always end up controlling large development projects. To ensure that these projects benefit communities, individuals and communities need to organize and act. They must use their experiences and expertise to contribute a strong voice, one that will influence the direction of projects that impact, for example, the closing of neighborhood schools, a large infrastructural endeavor that impacts local educational practices and access to quality schooling in one’s neighborhood

**The Equity Fundamentals**

The following details the higher-level Equity Fundamentals which draw on all 3 key documents described in the overview.

**Table 4: The Equity Fundamentals**

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| *Equity Fundamentals* | *Key Ideas from 3 Core Documents* | *Explanation* |
| **Culture: A Right to Belong** | *Access with dignity; Treatment with respect; Flexible, convenient, and accommodating; Universal access* | People must feel they have the right to be inside of and use a building. All equitable buildings, at the bare minimum, must be physically and economically accessible. They must be structured to honor and further local culture, activities, and values. Management must focus on using design, staff, and furnishings to foster a sense of belonging (diverse management helps significantly here). No equitable building will hold an offensive name or offensive statues, or other decorations or commemorations. |
| **Community Engagement** | *Relevant services; Inclusion; Health-promotion for at-risk groups; Your voice is a powerful and necessary tool in assuring that large development projects benefit existing communities and benefit nature; Infrastructure development impacts different communities in different ways; Values influence development decisions.* | The community and/or its leaders must be actively engaged throughout the building life cycle (design, construction, use). The building must seize every opportunity to engage and teach its local community. There must be a strong track record of involvement and listening. Training in design and planning can encourage people to act as ambassadors for the communities in the design process (IBD). Creating a balance between privacy and community vigilance is extremely important and requires thorough community engagement. Proposal must be communicated with the community effectively, using accessible, plain language.  |
| **Enhance the Local Environment** | *Equitable emergency response; Infrastructure serves multiple purposes; Development decisions impact both human and non-human life.*  | At the bare minimum, an equitable building will not negatively impact its surrounding natural or built environment. Ideally, the building will *complement* its natural environment by addressing local issues in its design (i.e. planting trees to improve air quality, being mindful of native species, providing gardening space if needed, etc.) and not introducing any environmental hazards. An equitable building and its surrounding sidewalk, parking lot, landscaping, etc. must be well-maintained as appropriate. Additionally, the building shall not introduce or exacerbate existing issues of high-volume traffic or noise. It will also complement its built environment.  |
| **Economic Justice** | *Fair treatment of workers; Inclusion; Treatment with respect; Values influence development decisions.* | At the bare minimum, an equitable building shall not exacerbate income inequality. An equitable building will introduce jobs to the local economy as much and as appropriate as possible. Training and job shadowing should be offered to provide meaningful jobs and encourage long-term careers. |
| **Define and Track Equity** | *Define and track equity* | There must be a clear definition of equity with examples of what is considered equitable and metrics that are then tracked. Binding language that uses terms such as "must", "shall", and "will" must be used in place of terms such as "should" or "maybe". Accessible language will be used when detailing the metrics and measures of success.  |

**Table 5: Examples of the Equity Fundamentals**

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| *Equity Fundamentals* | *Example #1* | *Example #2* | *Example #3* |
| **Culture: A Right to Belong** | Ever the Land movie about Te Kura Whare: The Tūhoe people take pride in their relationship with Mother Nature. The distinctive arch at the entrance to the Tribal Chamber of the Living Building simulates the flight path of Tama-nui-te-ra (sun) across the sky, from east to west. The entrance is also highly acclaimed for its openness – it is meant to feel welcoming and inspiring to all its visitors. Natural logs serve as posts, beams, and trusses, emulating the forest and reflecting on the vital role that trees play in the wellbeing of Tūhoe people. 1) <https://serve-learn-sustain.gatech.edu/ever-land-living-building-documentary-guided-reflection> and 2) <https://living-future.org/biophilic/case-studies/te-kura-whare/> | [NCCHR: The curvature of the walls of the National Center of Civil and Human Rights was inspired by the driving force of change: protests. It was "an evolution of the idea of interlocking arms." https://www.civilandhumanrights.org/](https://www.civilandhumanrights.org/) | ["America's Cities Were Designed to Oppress" explains how it can be dangerous to implement models of strict community vigilance such as those encouraged by Crime Prevention Through Environmental Design (CPTED) because they can facilitate discrimination against black people for being "suspicious." "America's Cities Were Designed to Oppress" explains how it can be dangerous to implement models of strict community vigilance such as those encouraged by Crime Prevention Through Environmental Design (CPTED) because they can facilitate discrimination against black people for being "suspicious." "The problem is when you are black in this country, you live daily with the heavy weight of the world’s distrust on your shoulders." https://www.bloomberg.com/news/articles/2020-06-03/how-to-design-justice-into-america-s-cities](https://www.bloomberg.com/news/articles/2020-06-03/how-to-design-justice-into-america-s-cities) |
| **Community Engagement** | [The Living Building Challenge, through the requirement that two major project team organizations that must attain a JUST label, includes workforce development/training/community benefit agreements, registered apprentice programs, or similar programs. https://living-future.org/just/](https://living-future.org/just/) | NAACP Community Engagement Guidelines: There are a lot of frameworks and theoretical guidance and not enough clear implementation best practices created by and for people typically excluded from the process of design and development. This resource, the first of three we intend to publish, is written for community members, residents, tenants, and neighbors to get equipped. <https://docs.google.com/document/d/17lhe4T-U-hEAYOnkLqNM6GxpoqZtU98DMvkLp2ugB5o/edit> | The documentary does a great job of explaining how there can sometimes be a narrative of "them" vs. "us" - they also discuss how important it was for the architect (Ivan Mercep) to first ask the community for their design preferences before even having one of his own. https://www.nzonscreen.com/title/ever-the-land-2015 |
| **Enhance the Local Environment** | [Inclusion by Design - page 8: People living in disadvantaged areas are more likely to suffer the impacts from high traffic volume, with itsassociated noise, disturbance and poor air quality, and a greater likelihood of being killed or injuredon the road. https://www.designcouncil.org.uk/sites/default/files/asset/document/inclusion-by-design.pdf](https://www.designcouncil.org.uk/sites/default/files/asset/document/inclusion-by-design.pdf) | [June Key Delta Community Center (great grassroots example, very environmentally sustainable and mindful of location) - transformed from a gas station; uses rainfall. https://www.portlanddeltas.org/jkdcc](https://www.portlanddeltas.org/jkdcc) | ICA Greenrise Building: Also known as the "ICA GreenRise Uptown Learning Laboratory”, the building demonstrates a creative culture for living and working among its diverse tenants, of nonprofits and 7th floor residents, while establishing an energy efficient eco-system that aims to take the entire building off of the grid. https://www.ica-usa.org/greenrise.html |
| **Economic Justice** | [Ever the Land movie about Te Kura Whare (case study draft complete): Some Tuhoe tribe members that worked on Te Kura Whare continued to work in the construction industry well after their work on the building. https://www.nzonscreen.com/title/ever-the-land-2015](https://www.nzonscreen.com/title/ever-the-land-2015) | [Growing Change (an example of flipping prisons) offers plenty of training and learning opportunities for things such as business, farming, aquaponics, vermiculture, etc. http://www.growingchange.org/](http://www.growingchange.org/) | [King County Sustainable InfrastructureScorecard offers a credit for "advancing econmic justice" which could include a project labor agreement https://www.kingcounty.gov/about/policies/executive/peraeo/per131aeo.aspx](https://www.kingcounty.gov/about/policies/executive/peraeo/per131aeo.aspx) |
| **Define and Track Equity** | [NAACP Getting Beyond Green Report: This is a strong recommendation - but the NAACP is also still working to define what equity means vis-a-vis sustainable buildings. https://naacp.org/wp-content/uploads/2020/04/CESBS-Equity-Baseline-for-Building-Standards\_July-2019.pdf](https://naacp.org/wp-content/uploads/2020/04/CESBS-Equity-Baseline-for-Building-Standards_July-2019.pdf) | Equity Impact Review tool is a value-focused and data-driven process review tool. Its purpose is to ensure that equity impacts are rigorously and holistically considered and advanced in the design and implementation of the proposed action (plan/policy/program development, operations modification, capital programs/projects, etc.) <https://www.kingcounty.gov/elected/executive/equity-social-justice/tools-resources.aspx> | LBC Equity Petal lists several requirements that projects must meet in order to satisy the equity petal. Here, equity is not given a single definition but rather a few different options for defining equity in order to fulfill the intent of equity in a way that best suits the development site. https://living-future.org/lbc-3\_1/equity-petal/ |

**Resources for Further Reading**

Commission for Architecture and the Built Environment. (2008). Inclusion by Design. Retrieved from <https://www.designcouncil.org.uk/sites/default/files/asset/document/inclusion-by-design.pdf>

Infobase & First-Run Features. (2011). The Pruitt-Igoe Myth. Retrieved February 01, 2021, from <https://gatech-primo.hosted.exlibrisgroup.com/permalink/f/1vgrnp4/01GALI_GIT_ALMA51383920070002947>

Jacobs, B., & Ederer, D. (n.d.). Introduction to Equitable and Sustainable Development. Retrieved January 01, 2021, from <https://serve-learn-sustain.gatech.edu/introduction-equitable-and-sustainable-development>

National Association for the Advancement of Colored People. (2019, July). NAACP Getting Beyond Green Report. Retrieved from <https://mcgrawimages.buildingmedia.com/CE/CE_images/2020/oct/CESBS_Equity_Baseline_for_Building_Standards_July_2019.pdf>

SLS Student Learning Outcomes

1. Identify relationships among ecological, social, and economic systems.
2. Demonstrate skills needed to work effectively in different types of communities.
3. Evaluate how decisions impact the sustainability of communities.
4. Describe how to use their discipline to make communities more sustainable.\*

\* *Note:* SLO 4 is intended to be used by upper division, project-based courses such as Capstone.