

PROJECT RESEARCH ASSIGNMENT

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Topics of Research: Guiding Principles of This Design

- “The New Normal” Life with a Global Pandemic
- Multi-Generational Living
- Sustainable Design

“The New Normal”

Life with a Global Pandemic

The COVID-19 Pandemic has affected the world, moving to the United States and causing quarantining in March 2020. Because of this extremely contagious virus, Americans were tasked with the job of quarantining at home, to protect themselves and others. Due to the necessity of staying at home when at all possible, home life has drastically changed. Many Americans, no matter the political affiliation, said that their lives had to be adjusted for COVID. This manifests itself in multiple different avenues that affect their daily lives, how they interact with each other, and their home.

These necessary shifts have shown the need for multiple adjustments to the “new normal” American home. With everyone at home, we are able to see areas in the home that need to be improved upon. Some of the areas that may need adjustments include:

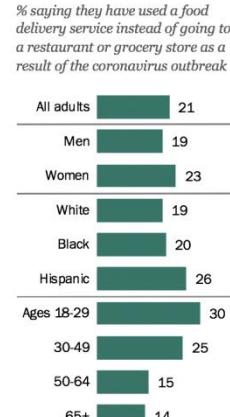
- Home offices- one or both parents/ spouses need areas to work. This may include desktop or laptop computers, desks with sufficient surface areas, storage for work documents/ supplies, the ability to attend virtual meetings (privacy).
- Schooling- for those with children, they may need a setup for a school environment that would need to be free of distractions like toys and recreational T.V. watching, but still have access to a computer and/or T.V. They need storage for their school books and supplies. It should be a designated area that evokes learning, and where they can have a mindset of a school atmosphere. It also needs to have the ability for a parent to sit and assist when needed, if virtual schooling ,or continually, if homeschooling.
- Play- for parents and children, there needs to be space where they can come together and enjoy activities like T.V. watching as a family, or crafting.
- Outdoor time/ Exercise- since most the time is spent at home, exercise for all is extremely important, but especially for energetic children. An exercise room would be most helpful, and many Americans mentioned they enjoy exercising together during COVID, doing activities like family yoga. Whether or not a designated room is available to get energy out, outdoor time is necessary for everyone’s overall health. Whether this is in a backyard or a park, storage may be needed for outdoor and exercise equipment.
- Cooking- with the pandemic, many Americans are wary of going to a restaurant, or even ordering from one. Yet the need to eat is still there! The kitchen needs to be able to withstand not only one chef, but multiple chefs, as many families are enjoying cooking together during this time. There should also be plenty of storage for leftovers, counterspace for when ordering out does happen, and safety of children in the kitchen should be thought of (Step stools to reach, hot ovens to be careful of).
- Sanitizing- at the entry of the home ,there should be an area where shoes, and perhaps even clothes can be taken off to decontaminate. There may be those with severe health issues, where an area to sanitize groceries or other items coming into the house can be accomplished. An designated outside area for a delivery driver to drop off food or items may be necessary.
- Storage- if the job is to limit outside interaction, one will probably get more things from a store, to limit the need of going out again. This means that the house should have plenty of storage for food and supplies like toilet paper and diapers that may be bulky.



Resources for “The New Normal”

- <https://www.uchealth.com/en/media-room/covid-19/effects-of-covid-19-on-families>, Accessed 25 August 2020.
- <https://www.today.com/parents/parents/how-homeschool-during-coronavirus-crisis-t176020>, Accessed 25 August 2020.
- <https://www.life360.com/blog/how-has-covid-19-impacted-family-life/>, Accessed 25 August 2020.
- <https://www.pewsocialtrends.org/2020/03/30/most-americans-say-coronavirus-outbreak-has-impacted-their-lives/>, Accessed 25 August 2020.
- <https://www.today.com/parents/parents-create-micro-schools-pandemic-pods-school-year-t187484>, Accessed 25 August 2020.

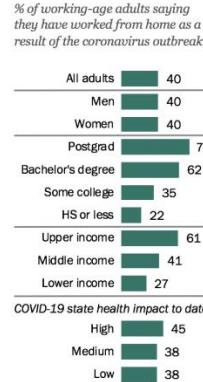
Younger adults more likely to have used a food delivery service because of coronavirus outbreak



Note: Whites and blacks include those who report being only one race and are non-Hispanic. Hispanics are of any race. Source: Survey of U.S. adults conducted March 19-24, 2020. “Most Americans Say Coronavirus Outbreak Has Impacted Their Lives”

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Four-in-ten working-age adults have worked from home because of coronavirus outbreak

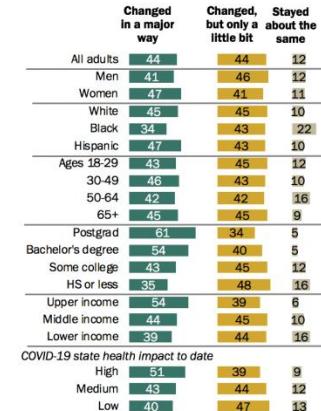


Note: “Working age” is defined as adults ages 18 to 64. “Some college” includes those with an associate degree and those who attended college but did not obtain a degree. Family income tiers are based on adjusted 2018 earnings. COVID-19 state health impact is based on per-capita cases and/or total number of cases. See Appendix for details. Source: Survey of U.S. adults conducted March 19-24, 2020. “Most Americans Say Coronavirus Outbreak Has Impacted Their Lives”

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More than four-in-ten Americans say their lives have changed in a major way

% saying that, as a result of the coronavirus outbreak, their personal life has ...



Note: Share of respondents who didn’t offer an answer not shown. Whites and blacks include those who report being only one race and are non-Hispanic. Hispanics are of any race. “Some college” includes those with an associate degree and those who attended college but did not obtain a degree. Family income tiers are based on adjusted 2018 earnings. COVID-19 state health impact is based on per-capita cases and/or total number of cases. See Appendix for details. Source: Survey of U.S. adults conducted March 19-24, 2020. “Most Americans Say Coronavirus Outbreak Has Impacted Their Lives”

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Multi-Generational Living

Many people have become quite fond of having a “Mother-in-law” suite added to their home. Don’t be fooled by the name, a mother-in-law isn’t the only person that can stay with you! Anyone that needs an extended stay or extra care has the availability to stay on your property, with their own amenities and privacy. What if there was an update to the mother-in-law suite? There is. It’s called Multi-Generational Living.

In Multi-Generational living, it gives security that family members will be taken care of, young and old, without getting into your personal space. Multi-Gen. homes are designed for multiple age groups in a family to live under one roof, providing multiple benefits to all family members. Here are a few of the benefits and details:

- Aging-in-place- many Baby Boomers are coming to the place where in the next few years they will not be able to take care of themselves fully. Not wanting to join the nursing home, homes are being designed with them aging in mind. From the layout to the materials used, it is perfectly possible for someone to stay in their home, even in old age. Multi-generational living makes this even better, knowing that a family member is close by in case of a health or other issue.
- Child care- having a family member nearby, especially grandparents, can make life a lot easier when childcare is needed. Pair this with the COVID-19 issue mentioned previously, and you can see the benefits.
- Adult kids- Millennials and Gen. Z kids are known for not getting married and having kids right away. This means that after college, a divorce, or chasing of a career path, adult children have a secure place to stay that is their own, but without the pressure of getting a place that belongs to only them.
- Family bonding- multiple family members under the same roof promotes more family time and allows family members to engage more and enjoy life together.
- Privacy- when Multi- Generational living is planned and not unexpectedly thrust upon a family, privacy and comfort can be planned. This is shown by creating suites or Jr. suites, with each generation having their own private space in the form of a bedroom, closet, bathroom, and sometimes even a living room and kitchenette. A private entrance is also a nice touch, promoting privacy and giving a sense of individual space.
- Savings- although the footprint of the house will likely be larger, as well as the utilities, with multiple people under one roof, there are more people to assist in paying the bills, making the overall cost of living easier to deal with.
- Resell value- at the very least, a house with multiple suites has great value. A family could come in and turn a suite into a game room that you never have to leave to get snacks! At the best, with Multi-gen homes up and coming, they will be in high demand, yet not extremely common yet. This means that resell value should be a given.



Resources for Multi-Generational Living

- <https://www.khov.com/blog/what-is-a-multigenerational-home/>, Accessed 25 August 2020.
- <https://www.schumacherhomes.com/the-schumacher-difference/multigenerational-living/>, Accessed 25 August 2020.
- <https://www.drhorton.com/multigen>, Accessed 25 August 2020.
- <https://extrasuite.khov.com/>, Accessed 25 August 2020.



Sustainable Design

The world is being affected from global warming. We are daily seeing the effects of it. Finally, after many documentations, movies, and real world disasters, people are beginning to truly see the need for sustainability. In the interior design world, we are able to make an impact for the good or the bad. We can inform clients of better ways to design a home that would be more sustainable. We first have to do the research ourselves and be aware of these opportunities and how to actually put them into practice.

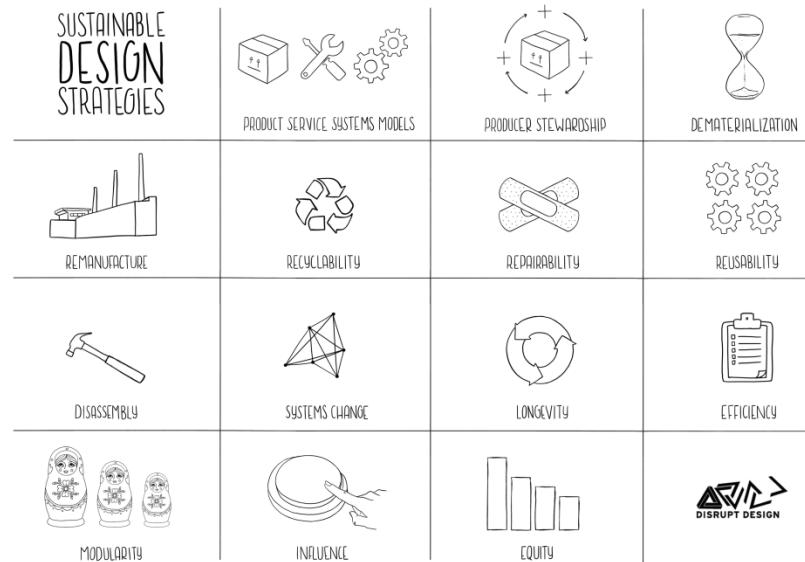
There are many different avenues of making a house and an interior more sustainable. These ways include:

- Net Zero Energy- this works best when it begins at the planning phase, before any home is constructed. However, a built home can also become net-zero energy, it just takes a bit more work. Net zero energy is basically a home that produces as much energy as it uses. This isn't just done by slapping some photovoltaic panels on a roof. More planning is involved, such as the direction of the house and the window placement, layering multiple studs, and more insulation.
- Lighting- a key factor to having sustainable design is not only not to overlight a home, but choices like the types of lamps to use (LED's are best), disposing of lamps and luminaries appropriately, and using lighting controls to turn off lights when not in use, or sensors that can automatically adjust lighting to make it appropriate to the lighting level needed.
- Materials- using renewable materials, such as fast-growing bamboo, fire baked clay, and neolith or recycled glass countertops, are great contributors to a sustainably designed house. These materials are easily regrown or are made by reusing or recycling materials, making sure that products that would normally be thrown away are in a home instead of a landfill. Be sure to choose items from a company that lines up with your sustainable design ideals.
- Disposal- making sure that when a project is being completed the builders and contractors are aware of the expectations of recycling , donating, and disposing properly is important. Convey this before hiring and be sure their ideals match with yours, so not to add stress or a complicated relationship later.
- Recycling and Composting- since many people are realizing the need for sustainable design, or are being informed by their designer, they will need a place in their kitchen to recycle, as well as a recycling center to transfer those items. If they are interested, they may also need a composting area for kitchen scraps in their kitchen ,as well as a larger area outdoors for compost (or there are programs that will pick up compost for you).
- Gardening- if they are interested in composting, they can also use their compost in a garden. While aesthetically, gardening flowers is good and certain flowers can be beneficial for bees, a client may also want herbs, vegetables, and fruit in their kitchen or outside to provide their own food. This cuts down on fresh foods transportation, and allows them to control pesticides as well.



Resources for Sustainable Design

- https://www.youtube.com/watch?v=st-Gd1ZcFyM&feature=emb_logo, Accessed 25 August 2020.
- <https://www.gsa.gov/real-estate/design-construction/design-excellence/sustainability/sustainable-design>, Accessed 25 August 2020.
- <https://www.dezeen.com/tag/sustainable-design/>, Accessed 25 August 2020.
- https://www.sabic.com/en/collaboration/article/closed-loop-recycling-circular-economy?gclid=Cj0KCQjw7ZL6BRCmARIsAH6XFDIg0OTlo0JsNc2THSApD5r8n4fH_Y1t2LW8jNy5nIRQLuTRK2xkx_4aAhSVEALw_wcB, Accessed 25 August 2020.
- <https://medium.com/disruptive-design/quick-guide-to-sustainable-design-strategies-641765a86fb8#:~:text=Sustainable%20design%20is%20the%20approach,that%20enables%20the%20Circular%20Economy.>, Accessed 25 August 2020.



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Concept and Concept Statement

Concept Statement:

A HOLISTIC EXPRESSWAY TO AN EFFICIENT HOUSEHOLD

Holistic- Looking at all parts as a piece of the whole

Efficient: Working in a well-organized and competent way

Design Concept: A home infused with the **appreciation of nature** is the perfect way to encapsulate the Boseman Residence. **Their enthusiasm for gardening** is paramount to their business and life, and will be showcased throughout the home. With the need to accommodate multiple generations, the home will feature private, work, and creative spaces. The house will have materials and building systems that shows intention to sustainability, while providing the clients with both **the benefit of healthier living** as well as a **practical interior and exterior**. **A holistic design approach will be used to give consistency throughout the entire home. A holistic atmosphere also receives the benefit of being efficient.** This will be seen in terms of sustainability as well as the physical house spacial planning, and how the end user moves through the space and interacts with family members. The home will feel connected by the spaces themselves having reasonable flow and natural wayfinding, enhancing the feel of the house being holistic. The home's **layout** will make it feel as if everyone is connected, while **the naturalistic materials and outdoor views** will lead one to feel connected to the outdoors as well.

Note: 3 Schemes are presented, each nodding to a different design style, and while each approach is a bit different, each conveys this concept.



Scheme 1 – Strong Shapes and Sustainable Substance

- Focusing on the **material aspect** of the concept, this scheme features an Arts and Crafts style influence, with modern updates. This greatly aligns with the concept, as the Arts and Crafts movement emphasized the beauty in materials.
- This holistic approach would feature **built-ins** of the Arts and Crafts movement, while **looking more seamless** like in the Modern style. **Strong lines** would be featured in the space, paired with oversized furniture.
- The main idea that sets this scheme apart is the **materials- natural materials enhancing the sustainability aspect would also lend to the design choices** with natural materials like cork, recycled/reclaimed wood, grasscloth, burlap, leather, and iron.
- The home would have a warm and comforting feeling from the natural materials, and would also give one the idea of **bringing the best of the outdoors in**.
- This scheme focuses on using the materials as a way to bring all parts of the home together, successfully taking in the **holistic** approach. This home will be **efficient** by not only the use of materials from a sustainability point, but also by using materials that are sound absorbing and creates privacy.
- All furniture, fixtures, equipment, and materials are chosen with **sustainability in mind** and is a combination of companies that are ecofriendly, materials that are sustainable, or both.



Color Palette



Flush Wood Door



White Oak



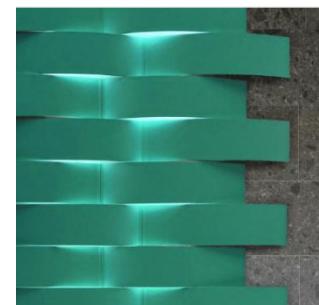
Leather Sofa



Cork Brick Wall



Textured Apron Sink



Acoustic Felt/ Light Panels

Scheme 2- Clean and Sleek

- With the idea of this home **being multi-generational**, this scheme focused on that aspect of the design. Looking to an infusion of the Contemporary design style with its clean, streamlined mindset, this idea can set a tone for the Bozeman home that even with **multiple members of the home, clutter and crowding are non-existent**.
- The furniture and finishings would push the **clean, sleek agenda**. Similar finishes could be used to blend in fixtures with its surroundings, furniture would be primarily be straight-edged and simple.
- The color palette would be the star** of the show in this Scheme. Neutrals would be shown throughout the house, with bold accents of color used strategically to showcase architectural elements or featured spaces.
- This scheme is **holistic** by looking at the home as a clean palette and looking to repeating colors and shapes throughout for harmony. It is attributed as **efficient** by using the spaces wisely, allowing built-ins and flush doors to give the illusion of more space.



Color Palette



Curved Cabinetry



Felt Acoustic Panels



Flush Lacquered Door



Leather Contemporary Sofa



Wood Panels and Door

Scheme 3- Earthy and Interesting

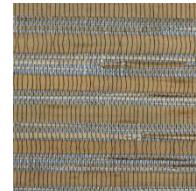
- An in-between option, **mixing the material focus** of the Arts and Crafts style, and **the clean lines** of the Contemporary style, this Scheme takes parts of both those ideals and mixes it to give a different look with a Mid-century Modern flair.
- **This scheme would have the woods, earth tones, and natural elements** important for sustainable design. For furnishings, **simple, strong lines** are still present, but may have **unique shapes** or designs.
- The color palette, **while still overly neutral, would show bold accent** colors that aren't afraid to be the star, whether shown in materials or furniture coverings.
- "Earthy and Interesting" allows the **holistic** aspect to be featured by allowing the materials to speak and strengthen the design. The colors and natural elements bring the outdoors in, making the entire interior and exterior feel as one. This scheme is **efficient** by allowing the colors and accents as a means of way-finding, designating different areas. As a mixture of the first two schemes, it has the benefits of materials as well as the clean streamlined look.



Color Palette



Tile Apron Front Sink



Grasscloth



Felt Acoustic Wall



Colored Leather Sofa



Sectioned Windowed Doors



Textured Wood Flush Doors

Sustainability Plan

In order to consciously build an environmentally friendly sustainable designs, there are certain key considerations that will be implemented into the built environment.

- Use sustainable materials or vendors that have an environmentally conscious mission statement that can be seen in their production.
- Use sustainable furniture or vendors that have an environmentally conscious mission statement that can be seen in their production.
- The South wall of the home will have a long facing exterior without many jets and niches in order to maximize daylight without heat.
- Recycling bins will be installed in the kitchen, making it easy for the client. A recycling center will be installed directly out of the dining room, providing storage for those recycled items once the bin is full, while being conveniently located for the family.
- A composting center will also be installed for the family to provide an area to compost leftovers, including leftovers from the gardening area.
- The home will use energy efficient appliances and lighting solutions.
- No/ low VOC paint will be used throughout the home to reduce toxins in the home and environment.
- Photovoltaic (Solar) Panels will be installed conspicuously and with finesse to provide a balance in energy that the home uses and produces.
- A rain barrel will be used to collect rain that will allow recycled water to be used to water plants.



Sustainable Materials



South Facing Wall



Composting



Photovoltaic Panels



Sustainable Furniture



Recycling Center/
Water Harvesting



Energy Efficient



Low/ No VOC Paint

3

Space Planning: Bubble Diagrams

Holistic and Efficient

Strong Shapes and Sustainable Substance

