



Creating and Managing Green Residential Interior Design in Baotou Inner Mongolia, China

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ABSTRACT

Purpose/Background: As sustainability garners global attention, exploring green design in residential interiors is significant. This study examined the creation and management of green residential design in Baotou, China. Environmentally conscious interior design can improve residential satisfaction, health, and conservation.

Methods: A qualitative approach involved semi-structured interviews with Baotou residents to gain insights into experiences with and perceptions of green residential design. Detailed interviews explored specific sustainable features residents valued along with challenges faced. Interview transcripts were systematically coded and subjected to rigorous thematic analysis.

Findings: Analysis highlighted the rationale for implementing green elements in Baotou and their impacts on residential communities, individual wellbeing, and the environment. Findings offer concrete implications for stakeholders including architects, designers, and property managers seeking to create eco-conscious interiors.

Conclusions: Dynamic policies on green design pose constraints to consistent implementation, impacting the feasibility of proposed decorative solutions. Still, findings demonstrate clear connections between sustainable features and increased residential quality, which can inform environmentally friendly urban development. Ongoing legal analysis and community consultation is critically needed to adapt strategies while meeting residents' needs.

Keywords: Green residential design, Baotou, Inner Mongolia

INTRODUCTION

In today's global environment, the demand for sustainability and environmentally conscious living has reached unprecedented heights, motivating a careful investigation into the establishment and administration of environmentally friendly domestic interior design in Baotou, Inner Mongolia, China. The increased awareness of ecological responsibility highlights the critical need to stress the incorporation of sustainable concepts into residential settings (Ivanovic, 2019). The purpose of this qualitative research is to explore the various practices, foresee future problems, and identify attractive prospects linked with the intentional implementation of green design in the unique setting of Baotou. This research intends to extract a rich tapestry of insights into their different viewpoints and experiences through an analysis of semi-structured interviews with residents, capturing refine knowledge that contribute to a profound understanding of green residential interior design. This study is crucial in revealing patterns, motives, and problems, shedding light on the broader goal of incorporating green design features into Baotou's residential landscape. The findings of this investigation will not only reveal the incentives driving green design adoption, but also provide a comprehensive knowledge of its substantial implications on both the immediate residential neighbourhood and the broader natural ecosystem. This study goes beyond theoretical sustainability frameworks, attempting to integrate the conceptual with the practical within the specific socio-cultural and environmental establishing of Baotou, contributing to the worldwide discourse on the creation of ecologically conscious living areas.

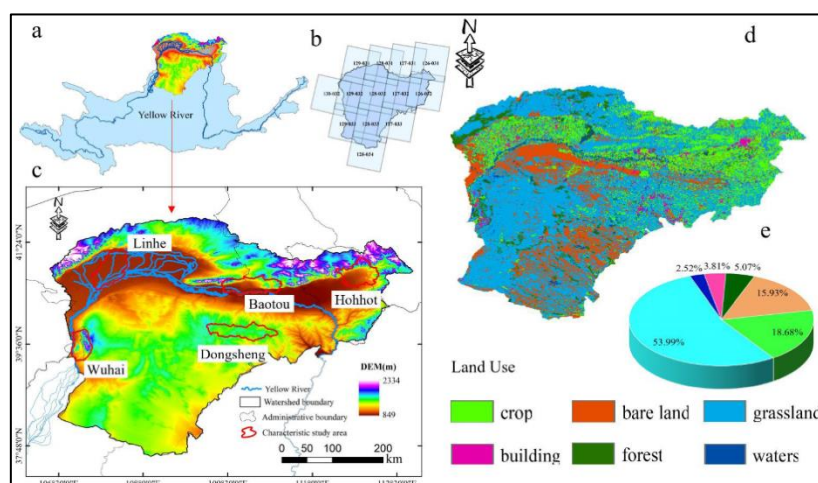


Figure 1: (a) Map of the Yellow River, Inner Mongolia section; (b) Landsat pictures; (c) elevation and cities; (d) land usage; and (e) land area.

Source: (Gao et al., 2021)

The global imperative for environmentally conscious and sustainable living has transformed residential design paradigms (Zhou, 2021; Suleman et al., 2024), this study specifically emphasis on Baotou in Inner Mongolia, China. This region provides a unique backdrop where traditional lives collide with modern urbanization, prompting an in-depth investigation of green residential interior design (Sulemn et al., 2023; Gao et al., 2021). The importance of this research is enhanced by China's dedication to ecological conservation, as evidenced by national policies. Baotou, with its unique environmental problems like as harsh temperatures and limited resources, provides a realistic backdrop for researching the practical application of green design ideas. As a result of growing urbanization, Baotou provides as a compelling case study, demonstrating how green residential interiors may effortlessly blend with both cultural identity and the ecological landscape. The insights acquired go beyond the bounds of Baotou, bringing vital lessons to worldwide sustainable living practices (Islam, Tamzid & Ocean, 2024).

This importance of this study is all about the understanding and implementing green residential interior design in the unique context of Baotou, Inner Mongolia, China. The key issue in Baotou is managing the delicate balance between traditional lifestyles and modern urbanization, which presents various obstacles and opportunities for incorporating sustainable principles into residential surroundings (Chen et al., 2021). In light of China's dedication to ecological conservation and sustainable development in national policy, research into the pragmatic application of green design is critical. Baotou's distinct environmental challenges, which include harsh temperatures and limited resources, highlight the need for tailored solutions. The region's rapid urbanization adds levels of complexity, prompting a detailed consideration of how green residential interiors can blend smoothly with both cultural traditions and the local ecological surroundings. By addressing these issues, the research aims to provide practical insights and recommendations to parties involved in building environmentally conscious living spaces not just in Baotou, but also in larger applications.

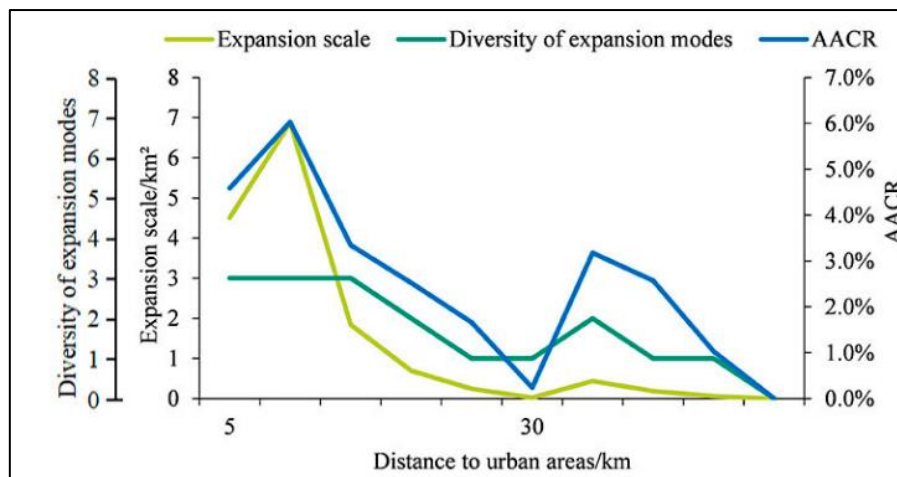


Figure 2: Transitioning from Diversification to Expansion in Residential Land Expansion

Source: (Chen et al., 2021)

This research is critical for the long-term development of Baotou, Inner Mongolia, while also providing vital insights into worldwide urbanization concerns. The study gives practical guidelines for the implementation of green domestic interior design by evaluating the interaction between traditional lifestyles and modern urbanization. In essence, the study adds to the discourse of balancing cultural traditions with environmental concerns, while also providing guidelines for future sustainable development initiatives.

The objective of this study is to investigate and appreciate the challenges, opportunities, and effective solutions associated with the implementation of green residential interior design in Baotou, Inner Mongolia, China. The study aims to provide insights and suggestions that contribute to the construction of sustainable living environments in Baotou by employing a qualitative methodology and evaluating interviews with inhabitants. The findings are also likely to provide useful insights with broader applicability in the field of environmentally responsible design.

LITERATURE REVIEW

Green Architecture Theory

The rules for green architecture were given by McHarg in his book “design with nature” in 1969. According to this theory the concept of green architecture is that the design and construction of buildings should be done in such a way that it least impacts the environment. Green architecture means the development of architectural design and construction of buildings by using sustainable materials that are eco-friendly and have least negative impact on the

surrounding environment (Chatira & Chen, 2019). McHarg put forward the rules for the green architecture, which include the rule of reduce, reuse, and recycle. Green architecture first prefers to make a design by considering its possible impact on the environment. It considers these possible impacts before siting a building. Moreover, reuse of building materials, recycling of material and conserving energy are some other rules implemented in the green architecture (Stratonova, 2021; Yefei & Naeim, 2024). The natural environment today is facing enormous negative environmental impacts due to multiple causes. Green practices and technologies are developed to cope up with this problem of natural environment deterioration. Green practices prefer the use of those processes that least impact the natural environment (Swope, 2021). Green architecture is one form of the green practice to preserve the natural environment. Green architecture prefers the innovation technology to reduce the environmental impact of designing and constructing. It involves the use of energy efficient and resource efficient process that reduce wastes, pollution and thus preventing environmental degradation. Green residential interior design is a subfield concerning green architecture. Green residential interior designs are sustainable designs that are environment friendly and do not adversely impact the natural environment (Xie et al., 2021). Green architecture therefore promotes sustainability by keeping in check the use of sustainable resources to develop and design building and by considering the possible impact of these on the wellbeing of the society. Moreover, it also keeps in check that resources should not exhaust and should be available for future practices. Green architecture has minimized the environmental impact by the use of technology innovation. The building's design is now constructed in digital form using computers, minimizing paper consumption. The building materials are modified and replaced with more sustainable materials that are eco-friendly. Green architecture thus add value to life by preserving the natural environment and preventing it from the severe impacts of the traditional architectural practices that produce abundant waste, polluting the environment (Khan et al., 2021).

Green Residential Interior Design

Green residential interior design is a form of sustainable design that involve the use of green practices to develop or design the residential interior rather than using traditional practices. It involves the designing of interior by using materials that can be recycled such as wooden furniture and by using renewable energy sources such as solar energy. Green residential interior designs therefore use green measures that reduce waste production, use energy efficient resources, and recycled materials to lessen the negative environmental impact (Bassas et al.,

2020). In densely populated cities and countries like China the use of green practices in every field add value to life. The cities with higher urban population face higher problems of resource shortage, pollution and impacted lifestyles. In such cities use of green practices reduce the stress on the society (Tang et al., 2020). Green residential interior designs provide picture for the sustainable life forms through efficient consumption of resources. The natural health of the environment is compromised due to use of traditional modes of interior design. The quality of air, water etc., is altered due to waste production and pollution. Moreover, natural fauna and flora are also impacted by this. Therefore, the use of green practices including green residential interior design not only promote sustainable growth of future society but also help to preserve the natural environment quality. The use of green residential inner design aims to develop the buildings; interior that are sustainable for living and have no or least impact on the mother earth. Green interior designs prefers to use the materials that are considered safe and promote sustainability (Wu et al., 2019).

Green Residential Interior Designs and Baotou Inner Mongolia, China

Baotou is the largest city with respect to urban population in Inner Mongolia, China. This city is present in the arid region of the yellow river's bent. This city was first inhabited by nomads the descendants of which were later called as Mongols. It is largest city in Inner Mongolia but was found as a city after the capital of the Inner Mongolia. Baotou has a continental climate which have moderate to high temperature fluctuations (Zheng et al., 2022). Inner Mongolia is rich in many resources such as coal, natural gas, and many rare earth elements such as zirconium, uranium, copper, gold, niobium, and beryllium. In fact, the reserves of rare earth minerals are highest in Inner Mongolia than in any other part of China. The minerals are extracted from these mineral rich resources through the process of mining and these play an important role in the economy of the China as well (Li et al., 2023).

Baotou in Inner Mongolia is facing severe environmental issues. This city is densely populated and face many environmental problems including climate change, global warming, and ecological degradation. Moreover, the chances of the unseen events such as earthquakes, floods etc. are more there than in any other city. The water pollution and air pollution are the leading issues in this city. The natural environment of the mother earth is impacted significantly in Baotou by the human activities (Gao et al., 2021). The air quality has been reduced due to deforestation that is caused by humans recklessly to meet their own needs and to develop goods for them. The air pollution due to excessive vehicle driving especially the burning of fossil

fuels has reached to certain limits due to anthropogenic factors. The water pollution is another threat imposed on the natural environment. The wastes from the industries, mining, and construction sites is dumped into the water systems that cause heavy pollution there (Lu et al., 2023).

Mining activities in Baotou are the leading cause of water pollution. The mining of rare earth minerals produces heavy metals wastes that are dislodged into the water systems altering the natural quality of water and thus impacting the natural environments. Extensive mining activities to get rare minerals produce many metallic and non-metallic sorts of wastes including the radioactive waste as well. This waste when dumped into water systems create heavy metal water pollution that is dangerous not only for the humans living there and consuming that water but also for the wildlife. Moreover, the global warming to excess burning of fossil fuels is another environmental issue impacting the mother earth (Zhou & Ge, 2021).

Deforestation to get lumber, wood has caused fires, and ecological degradation. Inner Mongolia is rich in rare wildlife as well such as Siberian ibex, snow leopard and Bactrian camel etc. the climate change has impacted the wildlife to dangerous extent. Even some species have become endangered (Yang et al., 2023).

All these challenges need to be addressed and are in need to find appropriate solutions for these problems. Moreover, to develop the practices that help man by least impacting the environment are of crucial importance when it comes to coping up with the environmental issues (Wang & Wu, 2022).

Management of Green Residential Interior Designs in Baotou, China

The Inner Mongolia face environmental and ecological degradation due to anthropological activities, such as deforestation, construction, and transportation activities. This problem of environmental degradation has now been addressed and reduced by the use of green practices. Green practices involve the use of measures that impact the natural environment least. Green measures involve the use of green materials, green innovation technology and green procedures to be used by humans in daily life that does not have any negative impact on the surrounding natural environment (Wenming & Ming, 2019). Green technology reduces the pollution by replacing the mechanical world with digital one. Green architecture is also of critical importance to preserve the quality of the natural environment. This reduces the pollution caused by the construction's activities. Moreover, the environmental degradation due to

cementing processes, and designing building is reduced by implementing the principles of green architecture (Wenming & Ming, 2019).

Green architecture includes the green residential interior design as well. Green interior designs are housing designs that promote sustainability and are eco-friendly. It involves the development of interior designs by using resource efficient and energy efficient modes. In Baotou Inner Mongolia to address the environmental issues, the green development policy has been developed. The green development policy provides the strategies that are opted by the Inner Mongolia to reduce the environmental impact of human activities and to develop sustainable procedures for preserving the natural environment (Gongwei, 2020). This policy of green development developed by inner Mongolia aims to make Mongolia to grow and evolve as a nation that prefer environmental sustainability and tend to develop the practices that does not leave any negative impact on the earth's natural environment and moreover the green practices will provide for future generations an insight to keep in check the environmental conditions and to develop processes that promote sustainability (Li et al., 2021).

The green residential interior designs involve the use of recyclable materials to develop the interiors. It involves the use of energy efficient modes to design interiors. Inner Mongolia is rich with many natural resources. The efficient use of these resources through green practices not only preserve the environment but also prevent these resources from being exhausted. Therefore, green inner design principle promote sustainability and add value in the environmental quality of the Baotou Inner Mongolia, China (Wu et al., 2019).

Development of Eco-Conscious Living Space in Baotou, China

The use of green practices to develop green residential interior designs using materials that can be recycled and energy sources that can be renewed result in the development of the living space that least impact the environment. The development of green residential interior designs result in the development of eco-conscious living space. A living space is said to be eco-conscious when it has no or least impact on the surrounding natural environment. The eco-conscious living space is a picture of interior designs that are developed through sustainable housing practices (Munro, 2023).

The green residential interiors design principles involve the use of wooden material instead of cement materials. Moreover, the wooden furniture to reduce waste production during construction is opted by the green residential interior designs. The energy used by the green

interior designs are from renewable modes especially the solar energy that create very less pollution and does not involve the burning of fossil fuels. This efficient use of energy and resources result in the development of eco-conscious living space that does not impact the surrounding nature and is sustainable in nature (Alam et al., 2022).

The creation of eco-conscious living space add value to the ecological and physiological environment. The preserving of natural climate, natural fauna and flora through green interior designs add value in the quality of environment. Thus in the highly populated city of the Baotou inner Mongolia the use of green residential interior help in preserving the natural quality of the environment that has been destructed due to many anthropogenic causes (Reading, 2019).

METHODOLOGY

Research Design

In order to examine how green residential interior design is created and managed in Baotou, Inner Mongolia, China, the study used a qualitative research design. An in-depth investigation of locals' perspectives and experiences with green design principles was made possible by qualitative methods. The study aims to investigate the development and administration of green residential interior design in Baotou, Inner Mongolia, China, and the qualitative research design selected fits with this goal. The investigation has determined that qualitative methods are the most appropriate due to their ability to provide a comprehensive understanding of residents' experiences and perceptions, thereby illuminating the complex facets of green design implementation. A nuanced examination of the incentives, difficulties, and effects related to implementing sustainable living practices is made possible by the flexibility that characterizes qualitative research. The research used a qualitative methodology to fully capture the diversity of residents' narratives, offering insightful information about the real-world experiences of living in greenly designed residential areas. This match between the goal and the research design guarantees that the study explores the contextual subtleties of Baotou in addition to the more general issues of sustainability, leading to a deeper comprehension of eco-conscious living in this special area.

Sampling

To choose participants who live in Baotou, the study used purposive sampling. This methodology guarantees the inclusion of study participants who possess pertinent experiences

and insights regarding green residential interior design. To ensure thorough coverage of all viewpoints, the sample size chosen based on data saturation.

Participants

The population of interest consists of Baotou residents who live in green residential areas. These people were chosen because they have personal experience and have been actively involved in incorporating eco-friendly design elements into their homes. The participants' varied ages, professions, and socioeconomic backgrounds allow for the capture of a wide range of viewpoints.

The main technique for gathering data was through semi-structured interviews. While guaranteeing that important subjects pertaining to green residential interior design were covered, a semi-structured format gives participants the freedom to voice their opinions. Depending on the accessibility and preferences of the participants, the interviews were taken.

Data Analysis

Patterns within the data are found, examined, and reported using data analysis techniques such as thematic analysis. The steps in the process include getting to know the data, looking for themes, evaluating themes, defining, and labelling themes, and creating the final report. A more nuanced understanding of the residents' perspectives was possible.

Validation of Data

Triangulation was used to increase the reliability and credibility of the results. This is the process of cross-referencing data from various sources, like resident viewpoints and recorded examples of green design implementations. In order to guarantee accuracy, a process known as member checking was employed, in which participants was given the chance to examine and confirm how the researcher interpreted their answers.

Ethical Consideration

The research process was always adhered to strict ethical guidelines. To ensure voluntary participation and response confidentiality, informed consent was obtained from each participant. The goal of the study and the participants' freedom to leave the study at any time without penalty was explained to them. All participant concerns and questions have been

answered, and the study is specifically conducted with the participants' consent, allowing them to withdraw at any time during the investigation.

FINDINGS

In this section, the findings from the qualitative insights gained from semi-structured interviews with the residents of Baotou are discussed. Data analysis conducted through inductive thematic analysis resulted in five primary thematic areas:

Theme I: Perception of Green Design Significance

Due to the distinct climate, Baotou locals stress the importance of using environmentally friendly and sustainable materials in the design of interiors. The environmental philosophy is supported by the use of energy-efficient systems, materials that are sourced locally, and natural ventilation. It promotes a feeling of wellness and an attachment to the surrounding environment while guaranteeing comfort and aligning with the area's dedication to ecological equilibrium. As stated by one of the respondents:

We understand the importance of environmentally friendly interior design because we live in Baotou. Due to our climate, energy efficiency must be improved through careful considerations such as the use of insulating materials along with optimizing daylight. Incorporating green materials and growing plants inside are examples of viable methods that not just lessen our ecological impact but also develop a peaceful living atmosphere that is consistent with Baotou's dedication to environmental preservation.

Moreover, for environmentally friendly living in Baotou, incorporating green features into residential decoration is essential. Locals place a high value on eco-friendly construction materials, appliances that are energy-efficient, and climate-appropriate designs. The people improve their living areas and Baotou's overall ecological condition by adding green spaces as well as making prudent use of natural assets. It is an eco-aware lifestyle commitment rather than merely being fashionable.

Theme II: Effect on Well-being

In Baotou, green design for interiors greatly improves one's well-being. Natural materials and indoor plants enhance the quality of the air, creating a healthier atmosphere. Intelligent design

choices, such as making the most of natural light, improve mood and increase productivity. This method not only produces a cosy living area but also fits in with one's way of life by encouraging a sustainable, eco-aware way of thinking and a relationship with the natural world. Moreover, the well-being of Baotou residents is transformed by ecological interior design. Plants and environmentally friendly materials can enhance air quality, which is beneficial to health. Carefully considered design, such as the use of natural light, improves comfort and fosters a calm environment, which lowers stress. These components complement one's standard of life by encouraging a more viable and healthful living atmosphere along with an overall feeling of satisfaction that goes beyond aesthetics. As stated by one of the respondents:

Baotou locals understand the importance of green interior decoration to their general well-being. Resilient materials as well as plants in the house enhance the quality of the air, promoting respiratory health. Well-thought-out design decisions, like adding natural light, improve comfort as well as create warm environments. The daily affairs of Baotou people are enhanced by this multifaceted strategy for interior design, which not only has a positive effect on well-being but also encourages a way of life that emphasizes sustainability and an association with nature.

Theme III: Cultural Integration

Locals in Baotou like to incorporate traditional Mongolian components into eco-friendly interior design schemes. They respect their cultural heritage by using materials that are sourced locally, such as wool as well as felt. Furthermore, by supporting regional artists, adding traditional motifs as well as symbols to home furnishings or decor enhances its aesthetic value and encourages a sustainable way of living. This blend of eco-friendly design and custom improves their living space and helps them feel more connected to their cultural heritage. Moreover, in Baotou, the locals plan to incorporate conventional Mongolian yurt aspects into their sustainable residential interiors. Living sustainably involves using natural materials such as wood as well as felt, which are influenced by their ancestors' nomadic lifestyle. Furnishings can be enhanced visually and culturally by incorporating traditional patterns along with symbols. They develop a more significant and viable living space that honours their cultural history and fosters an emotion of belonging by fusing conventional components with environmentally friendly design. According to one respondent:

The people who live in Baotou are in favour of incorporating cultural elements from Mongolia into eco-friendly interior design. A sustainable connection to our history can be established by skilfully integrating traditional patterns, hues, and materials such as yarn and wood. This improves our living areas' aesthetic appeal while also encouraging a deep attachment with our cultural heritage. Baotou's ecologically conscious as well as culturally diverse living environment is fostered by the integration of custom into ecologically conscious design.

Theme IV: Environmentally Friendly Materials and Reduction of Waste

The people living in Baotou see an increase in interior decoration that incorporates eco-friendly materials as well as waste reduction techniques. Reducing the environmental impact of interior design and furniture can be achieved by using recycled or transformed materials. Reducing waste is another benefit of using the circular planning approach, in which products are made with recycling in mind. This deliberate choice in Baotou's home interior design encourages a greener way of living and is in line with international initiatives to promote responsible consumption along with waste management. According to one respondent:

Locals in Baotou believe that using eco-friendly resources and reducing waste in interior decoration can lead to a greener way of living. Waste can be reduced by giving preference to materials with less ecological footprint and by using circular design concepts. Reclaimed or recycled furniture enhances the environmentally conscious atmosphere. This change contributes to a greener and thoughtful lifestyle by lowering our ecological impact and encouraging an atmosphere of ethical consumption.

Baotou locals emphasize the utilization of green resources and waste reduction in their vision of an environmentally friendly future for residential decoration. Ethical waste management is ensured by selecting products with low environmental impact as well as incorporating materials that are recyclable. A sustainable economy is facilitated by the use of creative designs that permit recycling or reusing at the brink of their useful lives. By implementing these habits, locals in Baotou actively support a more environmentally conscious way of living and promote environmental stewardship.

Theme V: Urban-Rural Dynamics

Baotou's green interior decoration for homes can embrace adaptability by creating modular, flexible spaces that suit a range of lifestyle preferences. Compact, space-saving designs can maximize smaller spaces for city dwellers. Open floor plans and an emphasis on natural substances can blend in well with the rural environment. This method guarantees that ecological interior designs satisfy the particular requirements of both urban as well as rural lifestyles. Moreover, in Baotou, ecological residential interior decoration needs to balance the needs of both urban as well as rural lifestyles. Compact as well as multifunctional designs make the most of limited room for urban dwellers. Emphasizing natural substances and open floor plans helps people feel more connected to their surroundings in the countryside. Green interior decoration can blend in perfectly with Baotou's rural as well as urban lifestyles by meeting a variety of needs. According to one of the respondents:

Baotou's sustainable residential interior decoration must be adaptable, meeting the unique requirements of both urban along with rural dwellers. Modern, compact designs could work well in urban settings, while open floor plans and natural substances could work well in rural ones to blend in with the atmosphere. By striking a balance between these factors, green interior decoration can cater to the varied tastes and ways of life of people living in urban and rural areas.

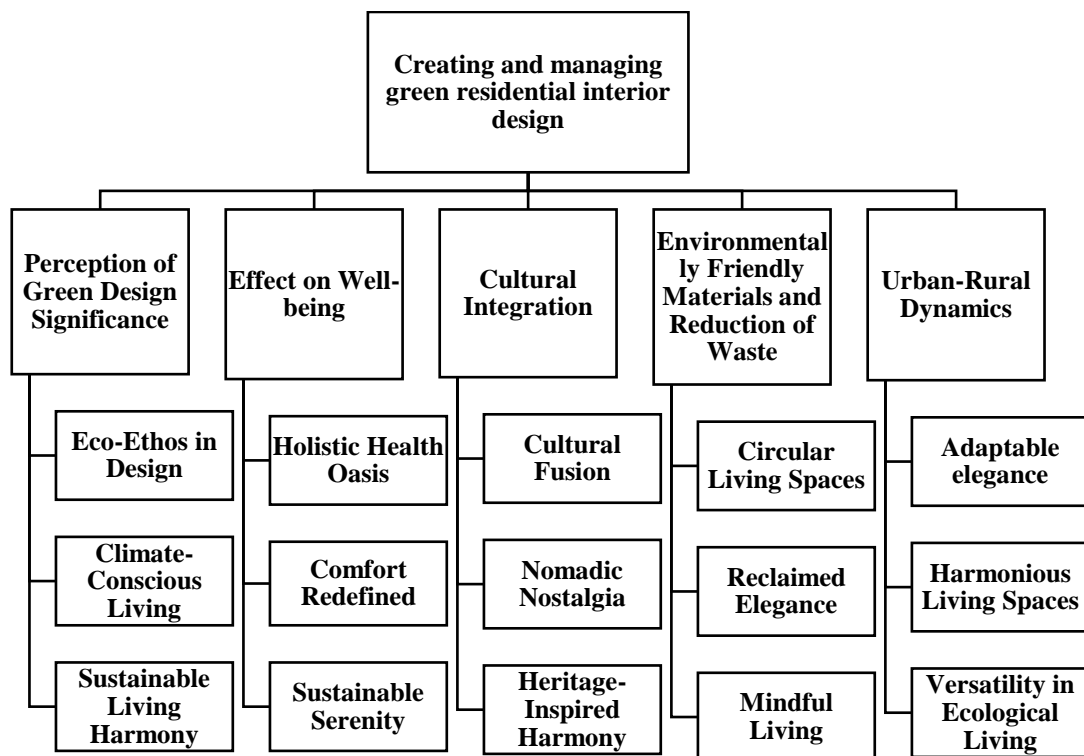


Figure 1: Illustrates the mind map for the above-mentioned themes.

DISCUSSION

A thematic analysis of semi-structured interviews conducted in Baotou provides important insights into how the locals view green design and how it affects different facets of their lives. Perception of Green Design Significance, Effect on Well-Being, Cultural Integration, Environmentally Friendly Materials and Reduction of Waste, and Urban-Rural Dynamics are the five themes that have been identified. These themes tell the story of how eco-friendly interior design is not just a fashion statement but also a deeply ingrained philosophy that meshes with the climate, culture, and aspirations for a sustainable future in the area.

Motivated by the distinct climate of the area, Baotou locals emphasize the value of green design. Ecological equilibrium is aligned with the emphasis on sustainable and eco-friendly materials. This goes beyond simple style; it's a way of life firmly based in knowledge of the difficulties presented by the regional climate. Reducing ecological impact and promoting a sense of well-being and connection to the environment are two benefits of integrating energy-efficient systems, locally sourced materials, and natural ventilation. As a key component of creating a living environment that reflects Baotou's commitment to environmental preservation, the locals view green design as more than just a fad. One important theme that emerges is the effect of green design on wellbeing. Indoor plants and natural materials are recognized as air quality enhancers that contribute to a healthier living environment. Tran et al. (2020) affirmed that the conditions of the indoor environment have a significant impact on human welfare because most people spend 90% of their time indoors, mostly at home or at work. Careful design decisions, like making the most of natural light, not only create a cosy and comfortable atmosphere but also have a positive impact on mood and productivity. The inhabitants recognize how ecological interior design has changed their lives and stress how important it is to encourage a sustainable and environmentally conscious way of thinking. Wang (2023) affirmed that the rationality of indoor ecological environment design has significantly improved with the use of virtual reality technology. Due to VR technology's superiority in indoor ecological environment design, designers have an abundance of references at their disposal. The idea that a green living space contributes significantly to a higher quality of life and goes beyond aesthetics is reinforced by this theme, which emphasizes the relationship between design decisions and overall well-being. A recurring theme is cultural integration, with Baotou locals expressing a wish to include traditional Mongolian elements in environmentally conscious interior design. This entails supporting local artists who incorporate

traditional motifs into their work and using materials that can be found locally, such as wool and felt. In addition to adding aesthetic value, the integration of cultural elements and eco-friendly design strengthens the residents' sense of cultural identity. Baotou residents create living spaces that reflect a harmonious coexistence of environmental consciousness and cultural pride by skilfully integrating traditional patterns and symbols. The increasing focus and knowledge of eco-friendly products and waste minimization strategies indicate a growing dedication to sustainable living. Residents are in line with international efforts to encourage responsible consumption and waste management because they understand the benefits of using recycled or transformed materials in interior decoration. Choosing to use circular planning techniques in interior design for a home is a purposeful move toward lessening environmental impact. The residents' belief that greens living encompasses more than just design aesthetics and involves responsible consumption practices, leading to a more environmentally conscious lifestyle, is emphasized by this theme. Urban-rural dynamics is a theme that highlights the need for flexible and adaptive green interior designs that can accommodate a wide range of lifestyle preferences. The people of Baotou understand how important it is to design modular, space-saving structures for city dwellers while simultaneously putting an emphasis on natural materials and open floor plans to foster a connection with the countryside. The flexibility needed in green interior design to accommodate the unique requirements of both urban and rural lifestyles is highlighted by this theme. Green interior design creates a cohesive element that blends in perfectly with Baotou's varied urban and rural fabric by finding a balance between contemporary, compact designs and traditional, open arrangement. Yang et al. (2022) suggest that the design of the interior should be centred on the needs of the people, starting with a realistic, thorough, and thoughtful consideration of those needs. It should also strive to create humane architectural spaces, enhance the quality of the space environment, and, to the greatest extent possible, improve people's quality of life by bringing convenience, safety, comfort, and enjoyment to them. Ultimately, the thematic examination of Baotou locals' viewpoints on green interior design indicates a complex and multidimensional interaction between design decisions and the larger context of culture, climate, well-being, sustainability, and lifestyle choices.

CONCLUSION

The results indicate that green interior design is a deeply ingrained philosophy that influences and improves many aspects of the residents' lives rather than just a passing fad. According to

Fang (2020), there are now much more people concerned about environmental protection, which has new implications for interior design. Sustainable design has emerged as the standard in recent years. Embracing these green design principles as Baotou develops not only creates a more aesthetically pleasing environment but also encourages a resilient and sustainable way of life, reflecting the community's dedication to ecological preservation and cultural heritage preservation.

IMPLICATIONS

This study sheds light on the complex aspects of green interior design within the unique context of Baotou, which makes a substantial theoretical contribution. The recognized themes—integrating cultural components, affecting well-being, and taking urban-rural dynamics into account expand current theories of sustainable design. The results lay the groundwork for future investigations into the ways in which cultural integration shapes environmentally conscious design decisions and how those decisions affect the well-being of inhabitants in diverse cultural and environmental contexts. This study has a wide range of practical implications. The insights provide guidance to architects, designers, and policymakers on how to customize green interior design approaches to the specific requirements of Baotou residents. Sustainable development objectives are met by the focus on locally sourced materials, cultural integration, and waste reduction. Using these insights, designers can make residential spaces that improve well-being, protect cultural heritage, and deal with the unique problems that Baotou's climate presents. In addition, the study promotes the use of circular design principles and eco-friendly materials, offering a road map for lowering the environmental impact of interior design. The results also point to possible directions for community outreach and education, encouraging a shared commitment to environmentally friendly living in Baotou and elsewhere.

LIMITATIONS AND FUTURE RESEARCH

This study has limitations even though it yielded valuable insights. The results are limited to the Baotou context and might not be broadly applicable to other areas with dissimilar climates, cultures, or socioeconomic backgrounds. Because data from interviews is used in the research, response biases may be introduced. Furthermore, the study mainly focuses on attitudes and perceptions, which calls for more research into actual behavioural patterns and the long-term effects of green interior design on residents' quality of life. The subjectivity of participant

responses may affect how the results are interpreted because this is a qualitative study. The diversity of viewpoints may not be fully captured by the small sample size of Baotou residents. Because the study focused on a particular geographic and cultural context, generalizability was limited, making results less applicable to larger populations. Furthermore, the accuracy of participant accounts may be impacted by social desirability bias when self-reported data is used. In order to gain a deeper comprehension of the universality or context-specific nature of the themes identified, future research endeavours ought to broaden the geographical scope to include a variety of regions. Studies with a longer time span can investigate the long-term impacts of environmentally friendly interior design on the health of inhabitants and the surrounding area. In order to provide a more thorough analysis of the frequency and intensity of identified themes, a quantitative approach could be used in addition to qualitative findings. Further research on the economic viability and market dynamics of green interior design in Baotou may also provide light on possible obstacles to or enablers of widespread adoption. Another interesting area for further research is how technology can improve interior design sustainability and how that can affect residents' experiences. In general, gaps should be filled by future research.

REFERENCES

- Alam, S. H., Ahmed, R. R., Hashem, E., Rami, A., Salleh, N. Z. M., Vasa, L., Delibasic, M., & Abrham, J. (2022). Destination environmental branding and sustainable eco-conscious consumer. *Transformations in Business & Economics*, 21(2).
- Bassas, E. C., Patterson, J., & Jones, P. (2020). A review of the evolution of green residential architecture. *Renewable and Sustainable Energy Reviews*, 125, 109796.
- Chatira, Z. I., & Chen, Y. (2019). Sustainable Architecture. *International Journal Of Social Science and Education Research*, 2(1), 167-171.
- Chen, Z., Liu, X., Lu, Z., & Li, Y. (2021). The expansion mechanism of rural residential land and implications for sustainable regional development: Evidence from the Baota District in China's Loess Plateau. *Land*, 10(2), 172.
- Fang, X. (2020). Discussion on Green Interior Design Creativity Based on 3R Concept. IOP Conference Series: Earth and Environmental Science,
- Gao, W., Zhang, S., Rao, X., Lin, X., & Li, R. (2021). Landsat TM/OLI-based ecological and environmental quality survey of Yellow River Basin, Inner Mongolia Section. *Remote Sensing*, 13(21), 4477.
- Gongwei, W. (2020). Measurement and Influence Factors of Green Development Capability in Provinces of China from the Perspective of Production-living-ecological Space Theory Taking Inner Mongolia as an Example. West Forum on Economy and Management,
- Islam, M. K., Tamzid, M., & Ocean, M. M. (2024). Adaptability and Acceptance of FinTech Payment System: A Study on the Users of Bangladesh. *South Asian Journal of Social Sciences and Humanities*, 5(1), 172-191.
- Ivanovic, O. M. (2019). Ecological responsibility and sustainable development as preconditions for development of the concept of circular economy. In *Green Business: Concepts, Methodologies, Tools, and Applications* (pp. 1-16). IGI Global.
- Khan, N., Jhariya, M. K., Raj, A., Banerjee, A., & Meena, R. S. (2021). Eco-designing for sustainability. *Ecological intensification of natural resources for sustainable agriculture*, 565-595.
- Li, D., Gao, X., Lv, S., Zhao, W., Yuan, M., & Li, P. (2023). Spatial Distribution and Influencing Factors of Traditional Villages in Inner Mongolia Autonomous Region. *Buildings*, 13(11), 2807.
- Li, T., Jia, Y., Fava, F., Xu, Z., Zhu, J., Yang, Y., Tang, L., Wang, Y., Hao, Y., & Cui, X. (2021). A geographic identification of sustainable development obstacles and countermeasures in drylands: a case study in Inner Mongolia, China. *Ecological Indicators*, 132, 108257.

- Lu, Y.-K., Liu, X.-L., Liu, Y.-H., Chen, N., Gao, H.-Y., Jin, Y.-H., & Yan, Y.-X. (2023). The effects of short-term exposure to air pollution on mortality in Baotou, China, during 2015–2019. *Environmental Geochemistry and Health*, 45(6), 3387-3404.
- Munro, K. (2023). Resources and Constraints in Eco-Conscious Households. In *The Production of Everyday Life in Eco-Conscious Households* (pp. 59-78). Bristol University Press.
- Reading, M. (2019). The Anuvrat movement: A case study of Jain-inspired ethical and eco-conscious living. *Religions*, 10(11), 636.
- Stratonova, L. (2021). Friedensreich Hundertwasser and his «Green Architecture». IOP Conference Series: Materials Science and Engineering,
- Suleman, D., Kashif, A., Gul, S., Hamid, S., & Yunus, A. (2024). Navigating Shadows: The Impact of Social Stigma on the Mental Health of the Transgender Community in South Asia. *Migration Letters*, 21(1), 167-181.
- Suleman, D., Kashif, A., Tilwani, S. A., & Rabeea, L. K. (2023). Impacts of Unjust Traditional Practices on Unhappy Marriage Life: An Empirical Assessment of the Social Context in the Kurdish Region. *Kurdish Studies*, 11(1), 145-160.
- Swope, C. (2021). Is green the new red? Marxism, ecology, and contemporary architectural theory. *Humanities*, 10(1), 45.
- Tang, K., Foo, C., & Tan, I. (2020). A review of the green building rating systems. IOP Conference Series: Materials Science and Engineering,
- Tran, V. V., Park, D., & Lee, Y.-C. (2020). Indoor air pollution, related human diseases, and recent trends in the control and improvement of indoor air quality. *International journal of environmental research and public health*, 17(8), 2927.
- Wang, L. (2023). Application of Virtual Reality Technology in Indoor Ecological Environment Design. 2023 International Conference on Data Science and Network Security (ICDSNS),
- Wang, Y., & Wu, X. (2022). The spatial pattern and influencing factors of tourism eco-efficiency in Inner Mongolia, China. *Frontiers in Public Health*, 10, 1072959.
- Wenming, W., & Ming, M. (2019). Evaluation system of green building and its application in engineering practice. Civil Engineering and Architecture. 2019 4th International Conference on Landscaping,
- Wu, Z., Li, H., Feng, Y., Luo, X., & Chen, Q. (2019). Developing a green building evaluation standard for interior decoration: A case study of China. *Building and Environment*, 152, 50-58.
- Xie, X., Qin, S., Gou, Z., & Yi, M. (2021). Incorporating green building into architectural education: what can we learn from the value-belief-norm theory? *International Journal of Sustainability in Higher Education*, 22(3), 457-476.

- Yang, H., Xiao, Z., & Deng, H. (2022). A Framework for Green Interior Design and Simulation Using Immersive VR Technology. *Mobile Information Systems*, 2022.
- Yang, L.-T., Sun, Y.-G., Jiang, C., Zhao, J.-F., & Qian, J.-X. (2023). Vulnerability Assessment of Potato Growth to Climate Change Based on GIS in Inner Mongolia, China. *Sustainability*, 15(19), 14607.
- Yefei, L., & Naeim, F. (2024). A Study on the VR Interface Design for Children Products and its Influence Towards China's Consumerism. *South Asian Journal of Social Sciences and Humanities*, 5(1), 103-128.
- Zheng, Y.-X., He, X., Li, X., Chen, K.-L., Guo, H., & Pan, X.-X. (2022). Raman Spectroscopy Analysis of the Mural Pigments in Lam Rim Hall of Wudang Lamasery, Baotou Area, Inner Mongolia, China. *Minerals*, 12(4), 456.
- Zhou, L., & Ge, J. (2021). Estimating the environmental cost of mixed rare earth production with willingness to pay: A case study in Baotou, China. *The Extractive Industries and Society*, 8(1), 340-354.
- Zhou, X. (2021). Analysis of the fit between architectural planning and design and human settlement environment based on Markov model. 2021 IEEE Asia-Pacific Conference on Image Processing, Electronics and Computers (IPEC)

Appendix: Interview Questions

1. In light of the regional climate and environmental circumstances, how important do you think it is to incorporate green and sustainable elements into Baotou residential interior design?
2. How, in your opinion, can green interior design improve Baotou residents' general quality of life, especially in terms of comfort, health, and way of life?
3. Would you like to see any particular Baotou cultural or traditional elements incorporated into eco-friendly residential interior designs? If so, how might these elements help create a more meaningful and sustainable living space?
4. Globally, there is growing concern over waste management. In what ways do you think Baotou residents' more sustainable lifestyles will be enhanced by the use of eco-friendly materials and waste reduction techniques in residential interior design?
5. Baotou is renowned for its distinct fusion of rural and urban living. How can green residential interior design accommodate the different needs and preferences of residents living in cities and rural areas?