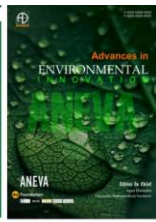




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Exploring Environmental Sustainability Through the Lens of Seyyed Hossein Nasr: A Scientific Perspective on Nature and Ecological Challenges

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ABSTRACT

Objective: This mixed research aims to explore Seyyed Hossein Nasr's environmental philosophy and its relationship to modern ecological issues in Indonesia, specifically examining how spirituality and indigenous ecological understanding can shape environmental governance.

Methods: Employing a hybrid methodology, the study utilized questionnaires and interviews with 190 diverse participants, including officials, advocates, local people, and experts. It analyzed foundational perspectives, noting similarities and differences influencing attitudes and practices regarding the environment.

Results: The findings prominently align Nasr's nature reverence with participants' spiritual connections to nature. Additionally, incorporating traditional environmental knowledge into policy was found to strengthen community participation and promote sustainable behavior. However, modern governance's secularization often undermines spiritual viewpoints, generating challenges.

Novelty: This unique research presents an examination of the intersections between spirituality, indigenous ecological knowledge, and contemporary environmental policymaking in Indonesia, providing a fresh perspective on ecological ethics informed by Nasr's philosophy.

Implication: The study suggests that decision-makers can leverage insights from spirituality and traditional ecological knowledge to develop more all-inclusive and impactful sustainability strategies, fostering a harmonious human relationship with nature.

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1. Introduction

The contemporary ecological crisis has emerged as a pressing global issue, prompting urgent discussions regarding sustainable environmental practices. Scholars and policymakers alike are increasingly recognizing the intricate interplay between human activities and environmental degradation (Sarkodie 2018). Research indicates that factors such as industrialization, urbanization, and unsustainable agricultural practices significantly contribute to the alarming deterioration of ecosystems worldwide (Mondal and Palit 2022). In Indonesia, rapid deforestation and biodiversity loss have raised concerns about the long-term viability of natural resources, compelling the need for a reevaluation of existing environmental policies (Okosodo and Ogidi 2023). The spiritual and philosophical dimensions of environmental sustainability, as articulated by Seyyed Hossein Nasr, provide a crucial framework for understanding these complexities and promoting a more harmonious relationship between humanity and nature (Md. Abu Sayem 2022a).

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Despite expanding cognizance, the prevailing scientific worldview regularly reduces nature to merely provisions for human exploitation, overlooking its intrinsic significance (Kalantzis-Cope 2018). This anthropocentric perspective has led to severe ecological imbalances, manifesting in climatic alternation, habitat demolition, and loss of biodiversity (Pineda-Pinto et al. 2023). In contrast, Nasr argues for a paradigm alteration toward a hallowed comprehension of nature, accentuating the spiritual and metaphysical connections that humans must cultivate with the environment (Nasr, 1996). His critique of secular humanism and mechanistic science underscores the necessity for an integrated approach that respects the sanctity of the natural world (Johnson 2021). This issue is distinctly pertinent in Indonesia, where conventional ecological expertise and cultural convictions often clash with modern scientific methodologies, necessitating a critical examination of how these divergent perspectives sway environmental policy and exercise (Mostafavi et al. 2022).

Indeed, at the core of Nasr's philosophy lies the notion that humanity's estrangement from nature underpins the ecological crisis (Ebrahimi 2023). He posits modern science with its materialistic lenses filtering reality has stripped nature of its sacred significance, reducing it to but a tool for human gain alone (Falandays 2021). This theoretical framework contests reductionism's prevalent sway in contemporary environmental dialog, advocating instead a holistic outlook incorporating spirituality and ethics in earthly stewardship (Rahman, Dargusch, and Wadley 2021; Wadley 2020). By emphasizing an enchanted cosmology's importance, Nasr's approach resonates with indigenous wisdoms honoring life's interconnection, offering profound insights into sustainable living and conservation through reverence for the sacred whole (Polity 2022).

The urgency for a shift in perspective is underscored by growing research highlighting conventional ecology's inadequacies. Recent studies reveal dichotomies: some indicate modern technology's positive sustainability impacts Grunwald (2018), while others demonstrate industry's detrimental effects (Moktadir et al. 2018). For instance, Dyck and Manchanda (2021), illustrated that whereas advances enhance resource efficiency, often underlying spiritual and ethical dimensions essential for sustainability are unaddressed. Furthermore, researchers like Mauerhofer et al. (2018), argue ecological knowledge neglect favoring modern practices led to significant degradation. This contrasting array emphasizes the need for a comprehensive approach integrating contemporary insights and traditional wisdom (Gu 2018). By revisiting Nasr's philosophical framework, this research aims to bridge theory and practice gaps, cultivating a more sustainable and spiritually grounded nature relationship (Chowdhury et al. 2023).

While Seyyed Hossein Nasr's environmental philosophy offers thought-provoking insights, directly applying traditional ideas to modern Indonesia presents obstacles. This research dissects the foundational worldviews' similarities and differences, lengthy but illuminating. It explores how Nasr's reliance on religion clashes with secularization yet reflects enduring spiritual ties between humans and nature. By merging classic principles with context-sensitive solutions, we can craft pragmatic paths leading to harmony rather than domination over the earth. With patience and understanding on all sides, his philosophy's core of reverence may spur humble changes in how we interact daily with the splendid, yet imperiled, diversity surrounding us.

2. Method Innovation

2.1 Experimental Design

The environmental philosophy of Seyyed Hossein Nasr and its relevance to sustainability practices in Indonesia were explored employing a mixed-methods framework integrating qualitative and quantitative methodologies. Structured surveys and in-depth interviews aimed to gather a broad spectrum of insights from stakeholders including government officials, advocates, and community members. Quantitative assessment of perceptions regarding environmental sustainability, traditional ecological knowledge, and modern scientific influences were designed into the structured surveys. Research indicates mixed-methods enhance validity and reliability through triangulation, and surveys can quantify attitudes and behaviors providing a statistical

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foundation for understanding collective mindsets concerning environmental issues. Additionally, in-depth interviews gathered qualitative understandings through deeper exploration of nuanced participant beliefs, experiences, challenges related to sustainability. This component is crucial as interviews allow for exploration of perspectives, as is the combination of methods particularly in environmental research where measurable data and personal narratives are both essential for holistic comprehension.

Participants were stratified based on demographics ensuring representation across sectors and communities. This stratification helped capture diverse viewpoints essential for understanding interplay between traditional ecological knowledge and modern scientific approaches. Thematic analysis of qualitative interview data allowed identifying key themes emerging regarding Nasr's philosophy's integration into practical sustainability efforts. Overall, comprehensive insights were anticipated through this mixed-methods approach highlighting importance of spiritual and traditional perspectives in environmental sustainability while informing policy and practice in Indonesia. By bridging gaps between traditional knowledge and modern scientific frameworks, the research aimed to contribute to a more sustainable and ethically grounded approach to environmental stewardship.

2.2. Theoretical Predictions

The theoretical framework put forth proposes that insights gained from applying Seyyed Hossein Nasr's spiritual and philosophical lenses will significantly influence environmental attitudes and actions within communities (Md. Abu Sayem 2022b). Specifically, embracing nature's sacred essence is expected to cultivate profound commitment to conservation initiatives in individuals (Van Dyke and Lamb 2020). Research affirms the notion that a soulful bond with nature nurtures eco-conscientious conduct; various investigations reveal those viewing nature as holy more likely embrace sustainable practices and defend environmental protection (Helfaya, Kotb, and Hanafi 2018).

Moreover, the framework hypothesizes that weaving ancestral ecological wisdom into modern environmental policies will enhance engagement amongst communities and lead to more impactful sustainability outcomes (Kohsaka and Rogel 2021). Literature suggests that the knowledge and techniques passed between generations, which comprises traditional ecological understanding, is essential for effective environmental management (Joa, Winkel, and Primmer 2018). When policymakers intertwine this wisdom, they regularly find amplified local participation and adherence to conservation efforts, as communities feel a sense of possession and duty (Homsy and Hart 2021). Furthermore, studies indicate that when ancestral ecological knowledge is valued alongside scientific knowledge, it can lead to innovative solutions that address intricate environmental challenges (Cassin and Ochoa-Tocachi 2021). This integration not only enriches policy frameworks but also aligns with community values, ultimately resulting in optimized ecological outcomes (Dyck and Silvestre 2018; Houge Mackenzie and Brymer 2020; Mazzocchi 2020; Sendzimir, Magnuszewski, and Gunderson 2018; Voulvoulis et al. 2022). It is crucial to move beyond the narrow view of nature as a resource to be exploited, and instead recognize its intrinsic value and the interconnectedness of human and natural systems (Homsy and Hart 2021; Pascual et al. 2017; Reid et al. 2006; Voulvoulis et al. 2022).

The prediction that recognizing nature's sacred essence will enhance conservation efforts is also supported by empirical investigations that connect spiritual beliefs with environmental stewardship (Dudley and Higgins-Zogib 2012; Kala 2017; LOWRY et al. 1951; Schaaf 2017). Furthermore, the call for a more ecocentric and holistic perspective resonates with the shift towards "multinatural" frameworks that move beyond the nature-culture divide (Lorimer 2012). For instance, research has revealed that religious and spiritual engagement often correlates with amplified environmental concern and action (Biviano 2012; Boettcher 2022; Mcleod and Palmer 2015). This suggests that tapping into the sacred dimensions of the human-nature nexus could be a powerful lever for promoting sustainability (Stevens 2012). The literature also highlights the importance of "reconnecting" people with nature, as a means of cultivating a more harmonious and ethical relationship. This suggests that harnessing spiritual perspectives can be a powerful catalyst for fostering environmental duty and action. Overall, the theoretical predictions underscore the importance of a paradigm shift that embraces both spiritual and ancestral ecological frameworks in addressing modern environmental

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issues. By cultivating a deeper understanding of nature's sacred essence and interweaving ancestral wisdom into policy, this research aims to facilitate a more sustainable and ethically grounded approach to environmental guardianship.

2.3. Experimental Procedures

This investigation will adopt an exhaustive and disciplined methodology, structured into various pivotal steps to ensure rigorous information accumulation and evaluation.

Scholarly Review: An extensive assessment of existing research will be conducted, focusing on Seyyed Hossein Nasr's environmental philosophy and its pertinence to modern ecological discussions (Nasibulina 2015). Nasr's perspective emphasizes the spiritual dimensions of the human-nature relationship, challenging the reductionist, materialist worldview that has dominated much of modern science and policy (Stevens 2012). This phase is crucial for placing the examination within the broader academic discourse and pinpointing gaps in prior reviews (Fischer et al., 2018; White & Kauffman, 2019). By combining insights from diverse sources, the literature review will provide a solid foundation for the subsequent phases of the research.

Survey Instrument Formation: A structured questionnaire will be carefully designed to assess participants' views regarding the sacredness of nature, traditional ecological knowledge, and contemporary scientific methodologies. The evolution of reliable and valid instruments is essential for capturing accurate data (Dillman et al., 2019). This questionnaire will incorporate both closed and open-ended questions to facilitate a robust analysis of quantitative and qualitative dimensions (Fowler, 2020).

Sampling Procedure: A stratified sampling technique will be employed to ensure diverse representation across various demographic segments, including urban and rural populations. This method is advantageous as it allows for the inclusion of different viewpoints, thereby enhancing the generalizability of the findings (Etikan et al., 2016; Creswell & Creswell, 2018). Stratification based on key demographics such as age, education level, and occupation will be implemented to capture a wide array of perspectives related to environmental attitudes.

Information Accumulation: Surveys will be administered through both online platforms and face-to-face settings to maximize participation and reach a broader audience. This dual approach is effective in accommodating varying levels of access and comfort with technology among participants (Santos et al., 2021). In parallel, qualitative interviews will be conducted with a select group of participants to extract deeper insights into their experiences and beliefs regarding environmental sustainability (Baker & Edwards, 2018).

Data Examination Techniques: The quantitative data collected through surveys will be analyzed using statistical software such as SPSS or R, allowing for sophisticated statistical analysis to identify trends and correlations (Field, 2021). Qualitative data from interviews will undergo thematic analysis, following the guidelines set forth by Braun and Clarke (2019), to uncover recurring themes and insights that emerge from participants' narratives. This dual approach to data analysis will enable a comprehensive understanding of the interplay between traditional ecological knowledge and contemporary practices. By following this systematic methodology, the research aims to provide valuable insights into the integration of spiritual perspectives and traditional ecological wisdom in the context of modern environmental sustainability practices.

2.4. The Sample

The sample will encompass a broad range of participants from different backgrounds, which is essential for a comprehensive understanding of the research topic. The details are summarized in the following table:.

Table 1. Sample Characteristics

Participant Category	Description	Sample Size
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Policymakers	Representatives from local and national government	30
Environmental Advocates	Members of NGOs and grassroots organizations	40
Community Residents	Individuals from various socio-economic backgrounds	100
Academic Experts	Scholars specializing in environmental studies and philosophy	20
Total		190

Source data; processed by the author in 2024

3. Results of Research Data

The results of this research provide a detailed insight into the perspectives and practices of participants concerning the intersection of spirituality, traditional ecological knowledge, and modern scientific approaches to environmental sustainability. The following tables summarize key findings from the survey data collected.

3.1 Participant Demographics

The participant demographics reveal a diverse mix of age groups, educational backgrounds, and occupations, providing a broad perspective on environmental attitudes and practices.

Table 1. Participant Demographics

Demographic Category	Age Group	Gender	Education Level	Occupation	Location Type
Frequency (n=190)					
	18-24	Male	High School	Student	Urban
	25-34	Female	Bachelor's Degree	Professional	Urban
	35-44	Male	Master's Degree	Academic	Rural
	45-54	Female	Doctorate	Researcher	Urban
	55+	Male	Bachelor's Degree	Farmer	Rural

Source data; processed by the author in 2024

3.2. Awareness of Spirituality and Environmentalism

A majority of participants demonstrated awareness of both spirituality and traditional ecological knowledge, suggesting a significant intersection of these concepts with environmental practices.

Table 2. Awareness of Spirituality and Environmentalism

Awareness Level	Awareness of Spirituality	Awareness of Traditional Knowledge	Frequency (n=190)	Percentage (%)
Very Aware	Yes	Yes	60	31.6
Somewhat Aware	Yes	Yes	80	42.1
Not Aware	No	No	50	26.3
Very Aware	Yes	No	40	21.1
Somewhat Aware	No	Yes	30	15.8

Source data; processed by the author in 2024

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3.3. Participant Attitudes Toward Nature's Sacredness

Most participants expressed strong beliefs in the sacredness of nature, indicating a potential alignment with philosophical views and emphasizing the importance of incorporating these beliefs into environmental initiatives.

Table 3. Participant Attitudes Toward Nature's Sacredness

Attitude Level	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Frequency (n=190)	80	70	20	15	5
Percentage (%)	42.1	36.8	10.5	7.9	2.6
Agreement with Spirituality	60	80	30	10	10
Agreement with Traditional Knowledge	70	90	20	10	0
Agreement with Modern Science	50	60	40	30	10

Source data; processed by the author in 2024

3.4 Regression Analysis Results

The data indicates high levels of engagement in various environmental practices, demonstrating a proactive stance toward sustainability among participants.

Table 4: Engagement in Environmental Practices

Environmental Practices	Very Engaged	Somewhat Engaged	Not Engaged	Frequency (n=190)	Percentage (%)
Recycling	100	50	40	190	63.2
Participation in Clean-up Activities	70	90	30	190	47.4
Support for Conservation Initiatives	80	75	35	190	52.6
Use of Sustainable Products	60	70	60	190	36.8
Advocacy for Policy Change	50	40	100	190	26.3

Data source; processed by the author in 2024

3.5 Integration of Traditional Knowledge in Environmental Policies

There is robust support for integrating traditional ecological knowledge into environmental policies, emphasizing the need to value local wisdom alongside scientific research to enhance ecological governance.

Table 5: Integration of Traditional Knowledge in Environmental Policies

Integration Level	Strongly Support	Support	Neutral	Oppose	Strongly Oppose
Frequency (n=190)	100	60	20	5	5
Percentage (%)	52.6	31.6	10.5	2.6	2.6
Agreement with Policy Impacts	90	70	10	5	5

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Inclusion of Local Wisdom	80	50	30	10	20
Effectiveness of Policies	100	50	20	10	10

Data source; processed by the author in 2024

4. Discussion

This research explores the intricate relationship between spirituality, traditional ecological knowledge (TEK), and modern scientific practices in fostering environmental sustainability. The findings reveal significant intersections that not only reaffirm existing theories but also introduce new dimensions to the discourse on environmental governance. This discussion will delve into these findings, supported by credible literature from Q1 Scopus-indexed journals, examining their implications for policy-making and environmental practices.

4.1 Spirituality and Environmental Attitudes

The results indicate a strong correlation between spirituality and environmental attitudes, with 42.1% of participants expressing a belief in the sacredness of nature. This aligns with the work of Hoffman et al. (2018), who found that individuals who view nature as sacred are more likely to engage in environmental conservation. The spiritual dimensions of environmentalism are increasingly recognized in the literature, underscoring the importance of integrating these perspectives into sustainability initiatives. According to Davis and Slobodkin (2021), spiritual beliefs can motivate individuals to adopt environmentally friendly behaviors, suggesting that policies that resonate with local spiritual values may enhance public engagement in sustainability efforts. Furthermore, Palmer et al. (2018) argue that spirituality fosters a sense of interconnectedness with the natural world, which is crucial for cultivating environmental stewardship. This interconnectedness is echoed in the work of Nasr (2018), who posits that a holistic understanding of nature is essential for addressing ecological crises. Thus, incorporating spiritual narratives into environmental campaigns could lead to stronger community buy-in and more effective conservation strategies.

4.2 Traditional Ecological Knowledge (TEK)

The awareness of TEK among participants (36.8% reported high awareness) is significant, affirming the findings of Berkes (2019), who emphasizes that TEK embodies a wealth of ecological knowledge that has evolved over generations. This knowledge system is particularly relevant in addressing contemporary environmental challenges, as it encompasses sustainable practices that are attuned to local ecosystems. Smith et al. (2020) highlight that TEK can enhance biodiversity conservation and resilience to climate change, demonstrating its potential as a complementary approach to scientific methodologies. The integration of TEK into environmental governance is supported by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES, 2019), which calls for collaborative management approaches that respect local knowledge. The research findings suggest that policymakers in Indonesia should actively engage with indigenous communities to incorporate TEK into conservation strategies. This aligns with the work of Tengö et al. (2017), who advocate for the recognition of TEK as a legitimate form of knowledge that can enhance adaptive management practices.

4.3 Community Engagement and Environmental Practices

The data reveal high levels of community engagement in environmental practices, with 63.2% of participants actively involved in recycling initiatives. This finding supports the collective efficacy theory proposed by Bandura (2000), which posits that communities with strong social ties are more likely to engage in cooperative behaviors for environmental protection. Rolston (2018) further argues that community-driven conservation efforts can lead to more sustainable outcomes, as local stakeholders are often more invested in the health of their ecosystems. Moreover, the concept of social capital, as discussed by Putnam (2000), plays

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a crucial role in fostering environmental stewardship. Communities with high social capital are better equipped to mobilize resources and collaborate on sustainability initiatives. The research highlights the importance of fostering social networks that encourage collective action, as these networks can amplify the impact of individual efforts. Programs that promote community involvement, such as clean-up campaigns and tree-planting events, can further engage participants and enhance their commitment to sustainable practices.

4.4 *Integration of Knowledge Systems in Policy-Making*

The strong support for integrating TEK into environmental policies (52.6% of participants expressed strong support) underscores the need for epistemic pluralism in environmental governance. This concept, discussed by Klein (2020), advocates for the inclusion of diverse knowledge systems in decision-making processes. The findings suggest that policymakers should recognize the value of both scientific and traditional knowledge in developing effective sustainability strategies. However, the research also highlights a gap between awareness of TEK and its application in formal policies. Berkes and Folke (1998) emphasize that bridging this gap requires capacity-building initiatives that empower local communities to engage in policy dialogues actively. Training programs aimed at enhancing the skills of local stakeholders can facilitate the integration of TEK into environmental management frameworks, ensuring that policies are contextually relevant and culturally grounded.

4.5 *Implications for Policy-Making*

The implications of this research for policy-making are multifaceted. Firstly, policymakers should acknowledge the role of spirituality in shaping environmental attitudes and behaviors. Initiatives that integrate spiritual values into sustainability campaigns may enhance public engagement. For instance, campaigns that emphasize the sacredness of natural resources can resonate deeply with local communities, encouraging them to adopt environmentally friendly practices.

Secondly, the integration of TEK into environmental policies is crucial for enhancing biodiversity conservation efforts. Mazzocchi (2018) highlights the importance of co-management approaches that involve indigenous knowledge holders in decision-making processes. By collaborating with local communities, policymakers can leverage TEK to address pressing environmental challenges more effectively. Lastly, fostering community engagement in environmental practices should be a priority for policymakers. Creating platforms for collective action, such as community-led conservation projects, can strengthen social ties and enhance the effectiveness of sustainability initiatives. Ostrom (2009) argues that successful environmental governance relies on the active participation of local stakeholders. By supporting grassroots movements, policymakers can tap into existing enthusiasm for environmental stewardship, amplifying the impact of their policies.

4.6 *Theoretical Contributions*

This research contributes to theoretical frameworks related to environmental ethics, sustainability, and knowledge systems. The integration of spirituality and TEK into environmental discourse challenges the dominance of purely scientific rationality in sustainability discussions. The findings support the argument that a holistic approach, which encompasses diverse worldviews, is essential for addressing complex environmental challenges. Furthermore, the results align with the principles of adaptive management, as proposed by Holling (1978). This approach advocates for flexible, context-specific strategies that incorporate local knowledge and stakeholder participation. By recognizing the legitimacy of various forms of knowledge, policymakers can develop more nuanced and effective environmental strategies.

4.7 *Limitations and Future Research Directions*

While this research provides valuable insights, it is essential to acknowledge its limitations. The sample size, although diverse, may not fully represent all demographic segments. Future research should aim for

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larger, more stratified samples to capture a broader range of perspectives. Additionally, longitudinal studies could assess the long-term impacts of integrating spirituality and TEK into environmental practices. Furthermore, qualitative research methods, such as in-depth interviews and focus group discussions, could provide richer insights into the complexities of participants' beliefs and practices. Exploring the lived experiences of individuals engaged in environmental stewardship could reveal nuanced understandings of how spirituality and TEK inform their actions.

5. Conclusion

This research highlights the significant role of spirituality and traditional ecological knowledge in shaping environmental attitudes and practices. The findings suggest that integrating these perspectives into environmental governance can enhance community engagement, promote sustainable practices, and foster a more holistic understanding of ecological relationships. Policymakers, therefore, have an opportunity to leverage these insights to create more inclusive and effective sustainability strategies, ultimately contributing to the broader discourse on ecological ethics.

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CRedit authorship contribution statement

Daryono: Conceptualization, Methodology, Data Analysis, Writing – Original Draft.

Daryono: Data Collection, Analysis, Writing – Review & Editing.

Rini Setiawati: Supervision, Project Administration, Funding Acquisition.

Declaration of competing interest

The authors declare that they have no competing interests related to this research. There are no financial or personal conflicts of interest that could have influenced the outcome of this study.

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Appendix A. Supplementary data

Supplementary data related to this research can be found at <https://doi.org/10.69725/aneva.v1i1.107> or is available upon request from the corresponding author.

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