

## **Blue-Space Restoration Theory extends the Understanding of the Quranic Verses of Water**

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### **Abstract**

Through all times, scholars interpreted the Quranic verses of water by emphasising on the essential role of water upon the physical formation of plants. This study aimed to extend this interpretation from a behavioural science background. Mix methods were used, systematic literature review and integrative analysis. With the blue-space theory, It concluded that water does not have a role in building the physical-form only. But, also the spiritual-creation. God mentioned in the Quran that water brings everything alive; it seemed that it was not limited to the physical form of a human, as mentioned by scholars. But also the spiritual form.

Keywords: Blue-space; Water; Quran; Quality Of Life

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### **1.0 Introduction**

One thousand years ago. If a man were asked to explain what is a drop of blood. His answer would probably consist of two words which are, a red-liquid. Presently, if the same question were to be addressed, a bunch of written papers and countless serious of books would be published to address the question- thanks to the advancement of science and knowledge. It's not an offensive matter to claim that the knowledge and scientific advancement at is peak level compared to 1000 years before. The roof of knowledge is increasingly growing higher. However, there are many respected Mubarak (blessed) scholars who interpreted the Quran. Such as (Ibn Kathir and Al-Zamakhshari) Their interpretation is not a revelation from God. But, it is a human try of interpreting the holy text which is based on human understanding. Thus, Human understanding is expanding. Consequently, trying to relook or extend the understanding of Quran interpretation with the back-drop of scientific advancement and knowledge might open new opportunities for new ideas and enlightenment from the holy book of Quran. A precise methodology and accurate try are highly required for two reasons. One is to respect the holy book, and second is to avoid any conflicts. However, it is important to remember; It was narrated that Abu Hurairah said: "The Messenger of Allah [SAW] said: 'If a man strives to reach the right conclusion and gets it right. he will have two rewards, and if he strives to reach the right conclusion but gets it wrong, he will still have one reward.'" In the light of this saying, making a mistake in trying to improve and do something positive is acceptable and will be rewarded by God even if it wasn't the right conclusion. But if it was right, it will be rewarded two times. In reflection, there are tens of case studies have done a modern try of interpreting the Quran by interlocking their speciality and knowledge with Quran texts such as, The Big Bang theory which was theorised by (George,1920s). It theories start of the universe that began from a single entity which was suddenly split off and exploded—known as the Big Bang theory.

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Similarly, in the Quran, when God described the start of creation before 1400 years ago. God said ( Have those who disbelieved not considered that the heavens and the earth were once a single entity, and We ripped it off then made from water every living thing? Will, they not believe?

There are plenty of examples where modern science was used to interpret some signs in the Quran and helped in letting human understand what God meant.

Through all times, scholars interpreted the verse "And we made every living thing of water" (Surat Al-Anbya': 21:30). By emphasising on the essential role of water upon the physical formation of creatures, such as human, animal, plants and earth. Not the psychological aspect. The Holy Quran is not a book of science but signs. The book points hundreds of times at scientific aspects such as cosmology, earth and nature. However, researchers who have a deep understanding of science might provide a better interpretation of some Quranic verses that regards science. The same goes for researchers of behavioural studies. Reading the Quran, from our perspective, might provide a valuable contribution to the interpretation and understanding of the holy book. In reflection, The research was concluded by extending the interpretation of the verse (Surat Al-Anbya': 21:30) from the physical creation of a human body into the psychological creation

## 2.0 Literature Review

### 2.1 Theory of Blue-space and emotional well-being

Most of the earth's surface is covered by water, and most of the human body is composed of water, two facts illustrating the critical linkages between water, health, and ecosystems." (WHO, 2017)

The above often-cited quote from the World Health Organization. The quote demonstrates the essential importance of water, element thereof. Recent research further stresses that blue space is not only linked with physiology and physical health. But that it also provides numerous opportunities for psycho-social and emotional restoration, and serves to maintain and improve mental health (e.g., lower depression rates).

Blue spaces are considered restorative environments on the first hand. It is part of the restorative environment theory (ART). Blue spaces are an element of nature. It is defined as visible surface water (e.g., lakes, rivers, canals, coastal water). The theory elaborates on the significates of blue spaces. Blue spaces can make us calmer, Splash of water improve our brain electrical activity and helps us reach a feeling of clarity and tranquillity. Blue space may endorse positive mental state and emotional well-being through opportunities for relaxation, reflection, and social connections or may indorse physical health also, through activities like recreation and swimming. However, there are three primary theories of which blue space can restore our psychological well-being. The first relates to visual exposure to natural areas. Secondly, it refers to the usage of blue spaces, including physical engagement. Thirdly, Physical engagement can also serve to push social connections. Blue spaces are settings for recreation (e.g., swimming, picnics, fishing), with benefits to both physical and mental state. However, the measurement of those blue space exposures has largely been limited to coastal proximity, self-reported usage of blue spaces, the proportion of residential neighbourhoods occupied by blue space, distance from home to nearest blue space, and visibility of blue space from the house. Likewise, the bulk of blue space health research has been conducted among adult populations (Amber L. 2017).

## 3.0 Methodology

Mixed methods were used. The research methodology was conducted in three stages: firstly, a systematic literature review to answer the first objective. Secondly, A Systematic literature review on the scripture of the holy book (Quran), to achieve the second objective. Third, an integrative analysis between results from stage one and stage two.

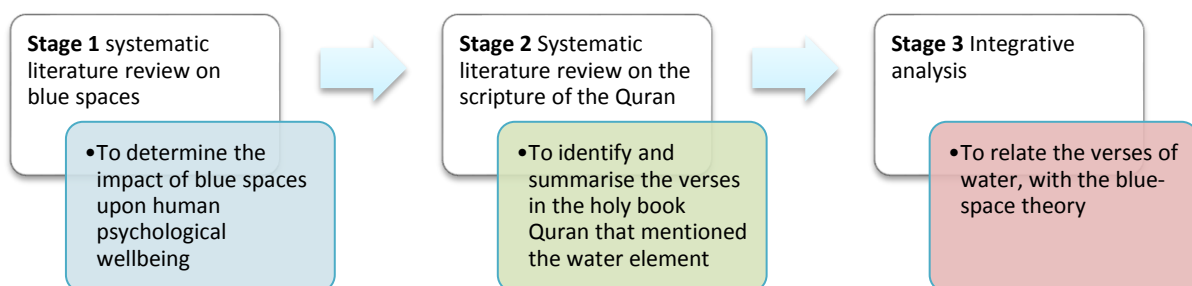


Figure 1 Methodology stages and justification. (Source, author)

### 3.1 Stage 1: a systematic literature review on blue spaces.

PRISMA guidelines were used to ensure a systematic and consistent approach

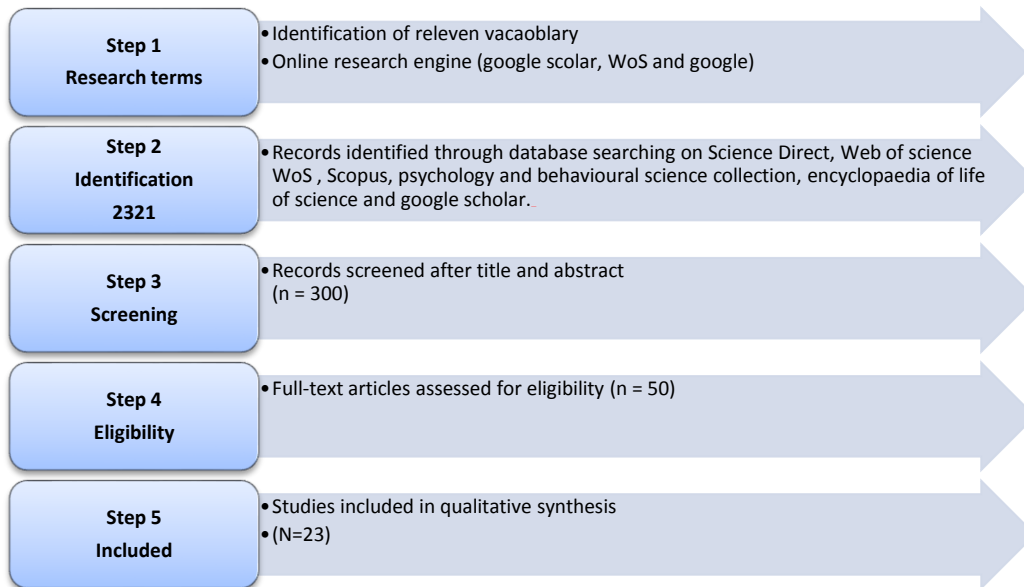


Figure 2 PRISMA guideline  
(Source, author)

### 3.2 Stage 2: Systematic literature review on the scripture of the Quran.

PRISMA guidelines were used to ensure a systematic and consistent approach. However, the literature review for the verse was not added to the research paper, due to the limited number of words as per requirements. It was attached. Click on PDF icon below



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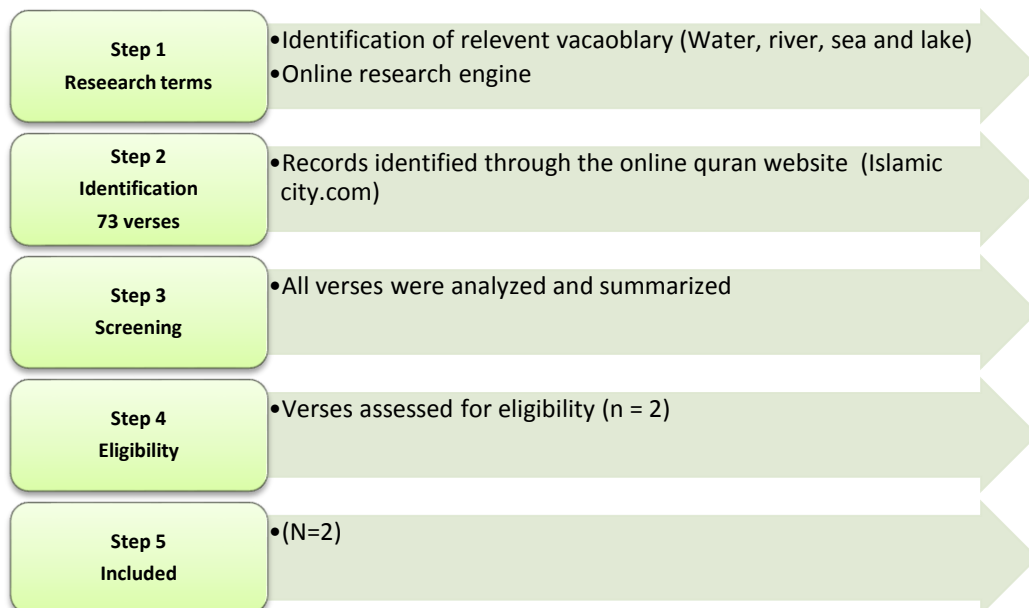


Figure 3 PRISMA guideline  
(Source, author)

## 4.0 Findings

### 4.1 Blue space systematic literature review

Twenty-three research papers were analysed in a systematic literature review. All paper was carried based on the theory of restorative blue space. All papers are experimental. Twenty-three of them with the natural environment, and five are conducted with a virtual experimental approach. However, Most of the positive outcomes were identified for psycho-social well-being.

Source	Aim of the study	Theory	Envio. Category	Samples	Age	Method	Health Issues	Outcome and Findings
Rogers et al., 2014, USA	Assess ocean therapy for seeking PTSD treatment	Blue-space	(ocean)	11	(majority 24– 30 years)	Pre-post, uncontrolled study	PTSD, depression	Improved Mental health, PTSD
Berger and Tiry, 2012, Israel	Explore the experiential approach to water therapy		ocean	NS	NS, Adults	Pre-post - Qualitative interview	Emotional and psychiatric difficulties	Improved Mental health
Godfrey et al., 2015, UK	Evaluate well-being outcomes of surfing for youth	Blue-space	ocean	136	8–18, youth and 27–60, adult	Qualitative interviewing	PTSD	Improved Psycho-social well-being, and PTSD
Matos et al. 2017, Portugal	Assess if behavioural problems at-risk youth and learning enhanced in self-regulation, social and emotional skills.	Blue-space	ocean	48	10–16, M	Qualitative interviewing	PTSD	Improved Psycho-social well-being
Dustin et al., 2011, USA	Explore therapeutic benefits of river running for PTSD	Blue-space	river	17	NS, Adults, M, F (n¼3)	Qualitative interviewing	PTSD	Improved PTSD
Tardona, 2011, USA	Investigate well-being impacts of kayaking as a nature-based activity for inner-city youth	Blue-space	river	129	9–17, youth, M, F (17%)	Qualitative interviewing	None	Improved well-being, behavioural
Carin Levy and Jones, 2007,	Investigate psycho-social benefits of scuba diving	Blue-space	river	3	33–53, adult, M	Post - Qualitative interview	SCI: quadriplegic, paraplegic	Improved psycho-social, physical
Mowatt and Bennett, 2011, USA	Impact of therapeutic fly-fishing intervention on PTSD	Blue-space	ocean	67	NS, adult	Qualitative interviewing and self-reflective letters	PTSD	Improved PTSD
Casey et al., 2009, Ireland	Understand the meaning and value of engaging in kayaking as a leisure pursuit for adults with an SCI.	Blue-space	Water (river)	6	NS, adults, M. F	Post - Qualitative interview	SCI: quadriplegic, paraplegic	Improved SCI
Caddick et al., 2015, UK	Investigate the well-being outcomes of water surfing	Blue-space	ocean	17	27–60, adult	Post - Qualitative interview	PTSD	
Ritchie et al., 2015, Canada	Examine qualitatively how OALE promoted resilience and well-being for First Nations youth from one community population.	Blue-space		43	12–18	Post - Qualitative interview	NS	Resilience and other aspects of health and well-being
Vella et al., 2013, USA	Evaluate the effectiveness of a fly-fishing program in reducing PTSD	Blue-space	river	74	22–64	Post - Qualitative interview	PTSD.	Psychological (mood, stress, sleep), PTSD
Nielsen and Mitchell, 2002, Canada	Investigate the psycho-social impact of dragon boat racing (DBR) as post-cancer rehabilitation, both physically and emotionally.	Blue-space	ocean	6	43–75, adult, F	Post - Qualitative interview	Emotional problems	Improved Psycho-social

<b>Armitano et al. 2015, USA</b>	<b>Explore the benefits of surfing for youth by assessing physiological improvements.</b>	<b>Blue-space</b>	<b>Water (sea)</b>	<b>16</b>	<b>5-18, youth, M, F</b>	<b>Pre and Post - Qualitative interview</b>	<b>Cognitive and learning Disabilities.</b>	<b>Improved psychological and Physiological, disabilities</b>
<b>Cavanaugh and Rademacher, 2014, USA</b>	Determine the benefits and outcomes of 2-day surf camp on social competence, social skills, and self-concept of students with ASD	Blue-space	ocean	11	10-16, youth, M, F	Pre-post, mixed, multiple measures/scales	ASD (autistic spectrum disorder)	Improved Psycho-social, social skills, self-concept, ASD
<b>Lopes, 2015, Portugal</b>	Evaluate the impact of a surfing program aimed at at-risk youth.	Blue-space	ocean	58	13-16, youth, M, F	Pre-post, mixed, interviews, questionnaire	At-risk youth, behavioural issues, learning difficulties. Physically aggressive behaviours	Improvement in Physiological, anti-social behaviour, well-being, connectedness
<b>Hayhurst et al., 2015, NZ</b>	Examine the potential for resilience to be enhanced in a group of youth participating in a developmental voyage.	Blue-space		272	16.55 (mean age), adolescents, M, F		Resilience, self-efficacy, social effectiveness, belonging	
<b>Triguero-Mas, et al., 2017</b>	<b>Assess ocean therapy for seeking treatment for PTSD.</b>	<b>Blue-space</b>	<b>river</b>	<b>26</b>	<b>(majority 24-30 years)</b>	<b>Experimental</b>	<b>indications of psychological distress</b>	<b>Better mood and HRV compared to the urban environment</b>

Figure 4: Systematic literature review (real experiments).  
(Source, author)

<b>Tsutsumi, et al., 2017</b>	<b>To test the Visuals and sounds of the sea upon human emotions</b>	<b>Blue-space</b>	<b>ocean</b>	<b>12</b>	<b>NS, healthy men in their twenties</b>	<b>Experimental</b>	<b>Mood, physiological stress</b>	<b>For those who preferred the sea movie, mood improved after watching the sea movie; parasympathetic nerve activity increased while watching the sea video, and heart rate decreased.</b>
<b>Emfield &amp; Neider, 2014</b>	To assess Images and sounds of natural beaches and the ocean	Blue-space	ocean	202	NS, Graduate students	Experimental	Mood, physiological stress	No effect on mood, but participants reported finding the images (and sounds) more relaxing than the urban counterparts
<b>Tanja-Dijkstra et al., 2018</b>	Assess Virtual reality coastal environment	Blue-space	ocean	85 students & 70 dental patients	NS	Experimental	Experienced pain, the vividness of memory	Less experienced pain, no effect on the vividness of memory compared to no VR (Study 1), or an urban VR (Study 2).
<b>White et al., 2017b</b>	To test Different types of beach images with three levels of biodiversity.	Blue-space	river	1478 panel members	NS	Qualitative interviewing	Stress	self-esteem and mood improved and self-reported stress decreased

Figure 5 Systematic literature review for virtual experiments  
(Source, author)

#### 4.2 Included verses from the literature review

The literature review was conducted through all the scripture of the holy book (Quran). A total of 73 verses included the word water, including rivers, rain, sea, and water. However, the verses were all identified and summarised. Two verses were included to be carried out for further analysis and synthesis.

##### 4.2.1 Verse one (Al-Anbiya (The Prophets) 21:30)

Al-Anbiya (The Prophets) 21:30		
Full Verse	Full Verse In English	
أَوَلَمْ يَرِ الَّذِينَ كَفَرُوا أَنَّ السَّمَاوَاتِ وَالْأَرْضَ كَانَتَا رَتْقًا فَفَتَقْنَاهُمَا وَجَعَلْنَا مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيٍّ أَفَلَا يُؤْمِنُونَ	Are the disbelievers not aware that heavens and the earth were once one single entity? We then ripped them apart? – and out of the water, we brought everything alive Will they not, start to believe?	
Verse (Clipped)	Verse In English (Clipped)	
وَجَعَلْنَا مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيٍّ	Out of Water, we brought everything alive	
Tafseer By	Interpretation Of Verse	Meaning Of Bringing A Land Alive
Ibn Kathir	Water caused the earth to grow plants, and other creatures used it	Physical Impact Of Water On Land, Such As Plants
Tafsir Al-Tabari	Water caused the earth to grow plants	The Physical Impact Of Water On Land, Such As Plants
Al-Zamakhshari	Water caused the earth to grow plants	Bringing the land alive

Figure 6 Tafseer (Al-Anbiya (The Prophets) 21:30). (Source, author).

##### 4.2.2 Verse two (Al-Furqan (The Criterion) 25:49)

Al-Furqan (The Criterion) 25:49		
Full Verse	Full Verse In English	
لِنُحْيِيَ بِهِ بَلْدَةً مَيِّتًا وَنُسْقِيَهُ مِمَّا خَلَقْنَا أَنْعَامًا وَأَنَاسِي كَثِيرًا	So That We Bring Dead City To Life (By water), And Give To Drink For Many Beings Of Our Creation, Animals As Well As Humans.	
Verse (Clipped)	Verse In English (Clipped)	
لِنُحْيِيَ بِهِ بَلْدَةً	So That We Bring Dead Land Alive	
Tafseer By	Interpretation Of Verse	Meaning Of Bringing A Land Alive
Ibn Kathir	A City That Waited Long Period of time For rain, It Is Devoid Of Plants Or Anything At All. As Soon As The Rain Comes To It, It Becomes Alive.	The Physical Impact Of Water On Land, Such As Plants
Tafsir Al-Tabari	So That With It We May Give Life To A Dead Land, Of, By Growing Vegetations And Quench The Thirst Of Countless Animals And Men Which We Have Created.	The Physical Impact Of Water On Land, Such As Plants
Al-Zamakhshari	That We May Give Life Thereby To A Dead Land, of plants And We, Give Many Beasts And Men That We Have Created To Drink Thereof.	Bringing the land alive

Figure 7 Tafseer (Al-Furqan (The Criterion) 25:49). (Source, author).

## 5.0 Discussion

### 5.1.1 Systematic literature review of Blue space theory

Twenty-three research papers were analysed in a systematic literature review. Most of the positive outcomes were identified for psychosocial well-being. The findings suggest how activities in blue space, might contribute to the reallocation of the city population as well as health promotion (Lopes, 2015; Fleischmann et al., 2011). Water can be particularly therapeutic, altering sensations and levelling the playing field-for instance, some participants were feeling equal to non-disabled divers (Carin and Jones, 2007). The number of studies evaluating the physical impacts of blue care was much less in comparison to psychological well-being. Mental rather than physical health issues characterised most of the populations included in the studies. Natural water settings with physical tests were more effective compared to experiments in controlled environments (Smolander et al., 2004; Collier et al., 2015). The findings highlight a multi-dimensional view of health. Participants experienced positive changes to sense of self, health, and well-being. However, the following quote from a participant in a scuba diving intervention (Carin-Levy and Jones, 2007), "Diving turns me back into a human being, I go down there, and I've got the freedom, and I'm back to being a person." However, not all of the experiences were positive. Participant selection bias could favour those who had more positive experiences, especially in qualitative studies where a minor number of contributors from a large sample might be interviewed [e.g., White et al. (White et al., 2016) only interviewed 11 out of the 100 participants on sail training trips]. However, the one shared factor by all studies is the restorative energy of water and its ability to heal the psychological health issues such as PTSD.

### 5.1.2 Verse (21:30) and (25:49) in relation to the blue space concept

God mentioned a second time (25:49). (لِنُحْيِيَ بِهِ بَلْدَةً مَيِّتًا وَنُسْقِيَهُ مِمَّا خَلَقْنَا أَنْعَامًا وَأَنَاسِي كَثِيرًا) which means, (So That We Bring Dead City To Life (By Water) And Give To Drink For Many Beings Of Our Creation, Animals As Well As Humans) he brings down water to bring a city/space/land alive. It was interpreted by scholars similarly as for plants. Knowing that the word "brining a city alive" did not include human and other creature, because if we continue the verse itself, God said (And To Give To Drink For Many Beings Of Our Creation,

Animals As Well As Humans). So God have already mentioned the other things. Which means, bringing a city alive, that hints for something more than plants. Again, God could have just said for growing plants. However, If we look at the theory of blue space, we will find that the presence of water brings a city alive. Emotionally and spiritually. Water heals our psychological suffering. According (Rogers.e, 2014, Berger and Tiry, 2012, Godfrey et, 2014), engagement with water element recorded improved PTSD conditions. Almost in all the experiments.

God SWT does not play dice in the way he uses wording. Every word used and Quran can only fit its place when God said to bring everything alive. That must be everything. Not only plants. God could have said, to bring the plants alive or to grow plants as he mentioned in other verses such as, (Al-anaam,99) when he said ( He, who brought down the water and with it, we grew the vegetation). However, plants might be part of the verse. In reflection, by attempting to relate the theory of blue space. It is proven that the presence of water brings us alive. Emotionally and spiritually. Water heals our psychological suffering. According (Ritchie et, 2015,) engagement with water element recorded improved PTSD conditions. Almost in all the experiments. Twenty-three research papers were analysed in a systematic literature review. Most of the positive outcomes were identified for psycho-social well-being. The findings suggest that simply by being close to the water, it will elevate our emotional state up. It brings a dead space alive similarly to what the verse indicated.

## 6.0 Conclusion

In the light of advanced science and research, This paper attempted to associate the data from behavioural science research field with the holy scripture of the Quran. By reading the Quran with a scientific mindset/background, to extract/understand more of what it contains(Holy Quran). By analysing 73 verse which relates to water/blue-space, two of them were included and furtherly analysed. This is a modern try of extending the understanding of the Quranic verse (21:30) and (25:49), in relation to the blue-space theory. It concluded that water does not have a role in building the physical form only, also the spiritual creation, which is well-known by many psychologists. But, what is unknown is, When God mentioned in the Quran that water brings everything alive, it seemed that it was not limited to the physical creation of things(as interpreted by almost all scholars) But, also the spiritual aspect. By continuing to read the verse, God clearly mentioned that it is for human and animal. This tells us that God did not mean for human and animals when he said to bring everything alive, because he already specifically mentioned them right after he said: "to bring everything alive."

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