

Analyzing and identifying geopolitical masculinity Garmasêr Kurdish women in the 20th century using AHP and GIS

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Abstract

The effect of the ambiguous and disputed geographical position of Garmasêr has been evident in human phenomena throughout history. Although geographical determinism has created many challenges for the Garmasêr women, they always seek empowerment. Based on the geopolitical position of Garmasêr, located in Iran, Iraq, and Kurdistan, two questions form the basis of this study. First, what were the characteristics of a Garmasêr woman in the 20th century? What criteria and factors have empowered the Garmasêr women? In this study, mixed methods of qualitative and quantitative were used. Based on the field method, 24 men and women between 40-60 years of age and experts in the semantic paradox of Masculinity in Kurdistan were randomly selected. Due to the geographical dispersion and high age of some interviewees, some data were collected via virtual interviews.

In summary, Regarding the collected natural and human criteria through interviews and in-depth observations, AHP was used to evaluate them. Simultaneously, the Garmasêr domain based on the geopolitical masculinity criteria affecting women has been determined using GIS. Respectively, each of the selected criteria, after pairwise comparison, was valued; among the chosen criteria, Social was given the highest coefficients of importance. And among the selected sub-criteria, the Locating between borders achieved the most excellent coefficient of importance.

Keywords: Geopolitical Masculinity, Garmasêr, AHP, GIS

1. Introduction and Problem Statement

Although Masculinity has always been controversial among intellectuals of various sciences to the extent that different interpretations, standards, and attributes have been defined for it. In this context of a crisis in Masculinity, some men insist on exhibiting and defending a dominant and exclusivist masculine identity associated with the values and privileges of a given class, race, or ethnic group, given beliefs, ostentatious and obligatory heterosexuality, and, of course, hegemony over women to reduce the personal and social impact of the changes brought about by feminism (Álvarez, 2013, 53). Due to a better understanding of Masculinity and its criteria, it is compared with femininity culturally. The contrasts between masculine and feminine belief signifiers are stark and pervasive. Masculine messages presume a preference for strength, challenge, winning, Performance, dominance, success, daring and lack of fear, heroism, leadership, money, training, and having the latest tools and technology. Feminine messages carry belief signifiers for sympathy for the weak, charity, relationship-building (including conflict reduction and compromising), commitment, togetherness, and getting personal (William, 2006, 9). Feminist critique of the power relation between Masculinity

and femininity is defined as the power to give privilege to the position of Masculinity and men and acknowledge the subordination of femininity and women. People are also guided to conform to gender norms in society as an identity. Female Masculinity emerged as part of a resistance to the gender norms where females should adopt and perform feminine values and ways of life (Padmi, 2018,45).

Regarding psychological terms, higher sociosexuality in masculine women can be explained by prenatal or actual androgen effects on sexual libido and can reflect a fast life history strategy (Bártová et al., 2020, 1). The geographical position plays a massive role in sophisticating female and male criteria, so many women are seen with male characteristics in disputed border areas. To prove this claim, of course, regarding living seven years in the Garmaşêr area, their historical-sophisticated human and natural criteria, after clarification, were analyzed. In addition, the article's main framework is based on two different questions: What were the characteristics of a Garmaşêr woman in the 20th century? What geopolitical criteria and factors have empowered the Garmaşêr women?

Undoubtedly and firmly, hypotheses are visible; as far as disputed areas are concerned, Garmaşêr women had and have plenty of positive male characteristics from the 20th century to now. Their classification, based on geopolitical position, is not easy. It is also time-consuming and more feasible with a comparative historical perspective.

1.1 Objectives

Working on Kurdish women's issues is a controversial subject in terms of security and environment. Based on this, we have two general and essential goals, locally and globally. Overall, we do not have decent studies about geopolitical female Masculinity in the border-disputed areas. Therefore, in this research work, its criteria and sub-criteria in border areas are found and categorized in a patriarchal environment. We want to do that with new thinking. To this end, we will select sufficient interviews based on the security criteria. Our paramount goal is introducing a real Kurdish woman in the 20th century. Accordingly, we have aimed at the Garmaşêr area, which was and is different. It is evident in border geography that a few studies are based on different kinds of models and GIS. We will do that to clarify precise spots geopolitically.

2.1 Research Methodology

Hybrid methods and models are the primary foundation of the newest geographical research in border-disputed areas. The qualitative-quantitative and survey methods are practical in women's and geopolitical geography studies on which we based this research work. It is done in two stages: The actual and internet library stage, which involves collecting relevant information from dissertations, theses, and all kinds of articles, books, and websites. In the second and most crucial field stage, 24 men and women between 40-60 years of age and experts in the semantic paradox of Masculinity in Kurdistan were randomly selected. Due to the geographical dispersion and high age of some interviewees, some data were collected via virtual interviews.

Finally, through interviews and in-depth observations, AHP was used to evaluate the natural and human criteria collected. Simultaneously, the Garmaşêr domain based on the geopolitical masculinity criteria affecting women has been determined using GIS (Geographic Information System).

2. Female Masculinity in the patriarchal-disputed areas

There is no study work about geopolitical female Masculinity in the patriarchal-disputed areas generally and, in particular, in Garmaşêr positively. However, in terms of theoretical criteria, several work studies about female Masculinity have been accomplished. The theoretical basis of the vast

majority of study works deploy Peter Lehman's concept of Masculinity and the theory of female Masculinity by Judith Halberstam to bring out the representation of female Masculinity. However, female Masculinity is admired in many papers. Cayli explained the dark side of it in Italy's mafia environment in 2016. Based on his article "Performance matters more than Masculinity: Violence, gender dynamics, and mafia women" says Masculinity in the mafia is characterized by violence, intrusive modes of governance, and the particular role that is assigned to its members, either male or female.

On the other hand, in terms of literature, several articles are accomplished. Wulandari, in 2019, focuses on Masculinity produced by Alanna Trebond as the main female character in Alanna: "The First Adventure (Song of the Lioness) novel by Tamora Pierce." Pereira et al., 2019 mentioned that genetically in their article called "Positive Association between Facial and Vocal Femininity/masculinity in Women but not in Men." Moreover, we can see some papers about female Masculinity socially, like "Femininity in men and masculinity in women is positively related to sociosexuality," cited by Bártová et al. in 2020.

3. The Garmasêr's geographical determinism and the geopolitical Masculinity of women

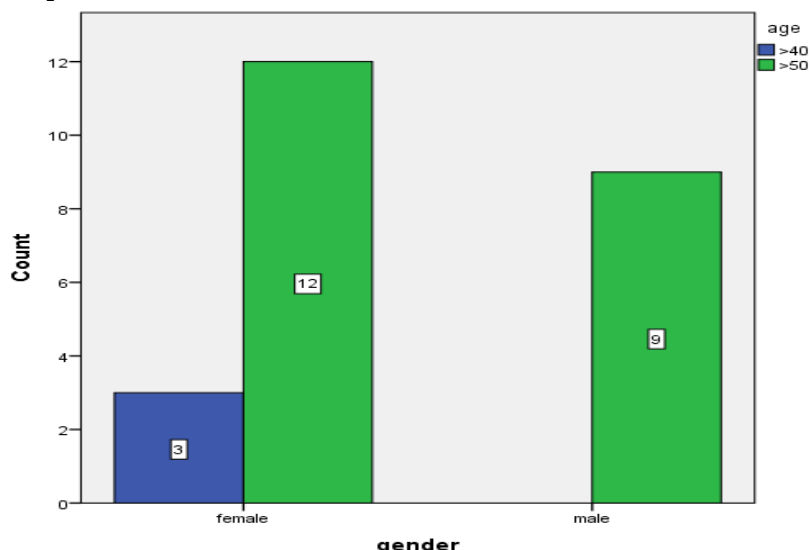
The rise of geographical determinism in the theory and practice of international relations has led to the emergence and constitution of many scientific spheres that determine decision-making of continental and world significance. The most well-known scientific pieces of knowledge in these areas are geopolitics, geoeconomics, and geostrategy. However, the significance of the constitutional role of geographical determinism in the understanding and structure of international relations is not limited only to these systems of knowledge (Vysotskyi, 2022, 554). Although Garmasêr had a vague and undefined border throughout history, it was a unified region from Dinur to the Sharzur area until the modern era. Regarding geopolitics, in the 20th century, it was divided between Iran and Iraq. It included Ilam, Sarpol Zahab, Qasr Shirin, Khaneqin, and the hills of Hamreen, Kalar, Darbandikhan, Kefri, Kirkuk, Dobz, Chamchmal and Qara Dag mountains, Mosul, and up to the border of Najaf (Z.Karim and A.Ghamparvar, 2017,3). Geographical determinism has turned Garmasêr into two dark and bright sides in the 20th century. On the positive natural geography side, there are many factors, including the geographical location and the appropriate climate and location of the region in terms of roads, transportation, and security situation, as well as the location of the area between the Arab-Iranian bloc and their proximity to the political Capital and their settlement in civilized cities with religious, political atmosphere and the belief in the existence of strong ties between them. Based on the other dark geopolitical side, we can mention several genocide processes against Kurdish people, such as Arabization, Anfal, and Displacement and Destruction of identity. In the latest Source about how these processes are carried out, a Baathist officer testifies that most victims were women and children (Amin, 2023, 186). Hence, all the parameters of natural and human paradox in the context of ambiguous and disputed geopolitics brought Kurdish women the newest sort of Masculinity, which is geopolitical.

4. Identifying geopolitical masculinity criteria of Garmsir Kurdish women with virtual and in-depth interviewing

Finding geopolitical masculinity criteria of Kurdish women needs a new online interview that is highly precise. Although the COVID-19 pandemic forced disruptive innovation, several valuation studies conducted interviews via videoconference (Peasgood et al., 2023, 1). Using different platforms was a must in this study based on random participants. Above all, criteria must be clear

historically and geopolitically. Moreover, interviewing, as well as other qualitative approaches to social science research, differs from quantitative methods in the sense of its ability to analyze the resulting data, making an allowance for participants' social lives (Alshenqeeti, 2014, 1). Therefore, this work used a Likert questionnaire to achieve a more accurate result of the in-depth interview type, which is a prominent feature and the first step of the AHP model. The in-depth interview and survey were accomplished with twenty-four random cases of 9 men and 15 women between 40-60 years of age and experts familiar with the semantic paradox of Masculinity in Kurdistan, shown in Table 1.

Table 1, participants characteristics



Source, article findings, 8/2023

Based on the above table, 24 people participated, including fifteen women (12 people over 50 years old and 3 people over 40 years old) and nine men (all over 55 years old).

The analytic Hierarchy Process (AHP) is one of the most comprehensive multi-criteria decision-making tools (Ahadi et al., 2023, 1). Like the other techniques, it can also handle multiple decision-makers (Duleba & Szadoczki, 2022, 1). In this study, Expert Choice software based on the AHP method was used to determine the weight of the criteria. In the first step, based on the goal of Identifying the newest Kurdish women's Masculinity to improve security in the 20th century, 27 of the natural and human criteria and sub-criteria were collected, shown in Table 2, which were considered matrix input under the supervision of experts in this field and converted into eight essential criteria or compact criteria and sub-criteria, as shown in Table 3. Finally, they were weighed using computer software or Expert choice. Although Intimate partner violence is a prevalent issue in refugee and internally displaced populations in post-war and migration settings, including camps in the Middle East (Goessmann et al., 2019, 1), Garmasêr Kurdish women in the 20th century have been able to rely on geopolitical Masculinity and be different despite living in a harsh family and community environment. Kurdish society historically enabled the rise of charismatic women (Bengio, 2016, 30). Based on historical evidence, in-depth observations, and collection of various factors by participants familiar with the region and geopolitical criteria and sub-criteria in the 20th century, such as being fearless and close to the borders, Kurdish women lived geopolitically in a masculine way.

Table 2, the natural and human criteria and sub-criteria

Being strong	<i>Having a short distance to Baghdad, Qasr Shirin, and Sarpol</i>
Responsible	<i>The historical roads</i>
Money maker	<i>Geostrategic transportation</i>
Patient	<i>Anonymous security situation</i>
Challenges seeker	<i>locating between the Arab-Iranian bloc</i>
Fearless	<i>Being located between different plains like Zahab</i>
Fighter	<i>Placing in religious and political cities</i>
Hard worker	<i>Arabization process</i>
Wise	<i>Anfal process</i>
Manager	<i>Displacement</i>
Intelligent	<i>Having a suitable climate</i>
Leadership	<i>Near the borders of Parviz Khan and Manzariyah</i>
Being multilingual	<i>Peaceful coexistence of various religious and ethnic identities</i>
Decision maker	

Source, article findings, 8/2023

Table 3, compact criteria and sub-criteria	
Problem solver (P)	<i>The distinguished geographical and climatic position(Gc)</i>
Social (S)	<i>Close to the political Capital (Cp)</i>
Brave (B)	<i>Destruction of identity (Di)</i>
Economic Provider (E)	<i>Locating between borders (Lb)</i>

Source, article findings, 8/2023

4.1 Analyzing Criteria Using AHP

In academic research, considerable attention has been devoted to finding criteria that enable judgments between competing research claims. However, this leads to a second, equally intractable problem: How can we determine which set of putative criteria to adopt (Garratt, 1998, 1)? Multi-criteria decision-making (MCDM) techniques were created to support the complex decisions of individuals, a few experts, or stakeholders in specific problems. Analytic Hierarchy Process (AHP) is undoubtedly one of the most popular MCDM methodologies. AHP is a method for modeling and quantifying the decision-making thought processes of experts on complex problems. This approach can decompose the complex problem into several levels or factors, invite experts to compare and score each factor and calculate the weights of the different metrics to provide a basis for choosing a decision-making scheme (Ma et al., 2023,7).

Given the complex and undefined criteria of geopolitical Masculinity Garmasêr Kurdish women in the 20th century, AHP was the most decent program to identify and prioritize them carefully. Based on online and face-to-face interviews with 24 random cases of the experts in the semantic paradox of Masculinity in Kurdistan, 27 cases of natural and human criteria and sub-criteria were initially turned into eight compact challenges that were summarized in a way to make the analysis process more manageable. Second and most importantly, eight intensive criteria were prioritized by opinion polls. Of course, in a quantitative range of 1 to 9, from the most negligible to the most impact. Likewise, most importantly, the first word of each of the eight intensive criteria and subcriteria was used in Expert choice to ease going ahead with the process.

4.2 Explanation of the coefficients of the importance of geopolitical Masculinity criteria and sub-criteria

The first step after finding human and natural criteria and subcriteria for identifying geopolitical female Masculinity is determining their significance coefficients. In Figure 1, each of the selected criteria, after pairwise comparison, has been valued.

Figure 1: Determination of the coefficients of the significance of the opted criteria



Source, article findings, 9/2023

At first glance, among the selected criteria, Social and Economic Provider have the highest coefficients of importance, and Brave has the lowest.

5. Explanation of the importance coefficients of selected geopolitical sub-criteria

This part of the AHP process has two parts: first, considering several years of residence in the Garmasêr area and continuous research and consultation with local stakeholders, and most importantly, based on the degree of affecting human criteria, four geopolitical criteria (Gc, Cp, Di, and Lb) were selected, shown in Figure 2. Secondly, it was evident that the geopolitical sub-criteria are prioritized based on each criterion. The position of each one is assessed for the main criteria. Likewise, the geopolitical sub-criteria with the most impact on Kurdish women's Masculinity are ultimately selected. In Figures 3, 4, 5, and 6, each desired area is evaluated individually based on the selected criteria.

Figure 2: Determination of the coefficients of the significance of the opted sub-criteria



Source, article findings, 9/2023

As we can see, among the finding sub-criteria, Locating between borders has the highest coefficients of importance, and Close to the political Capital received the lowest.

5.1 Problem solver(P)

The patriarchal and ambiguous atmosphere has played a vital role in creating geopolitical female Masculinity among Kurdish Garmasêr women throughout history in many aspects; due to having a different geopolitical position, women have always been seeking the best solution to challenging problems.

Figure 3: The significance Coefficient of geopolitical criteria based on Problem solver(P)



Source, article findings, 9/2023

As can be seen, Lb, based on P or problem solver, with a significance coefficient of .565, is in the first position, and Cp, or *Close to the political Capital*, with a significance coefficient of .055, has the most negligible impact in this field.

5.2 Social (S) and Brave (B)

The cross-border location of the Garmasêr region has had many challenges and benefits in the 20th century for Kurdish people, particularly women. They bravely had and have peaceful relations with the natural and human environment.

Figure 4: The significance Coefficient of geopolitical criteria based on Social (S)



Source, article findings, 9/2023

According to the above Figure, it was evident that based on Social parameters, Locating between borders and the Destruction of identity has had the most effect, while Close to the political Capital has played the slightest role.

Figure 5: The significance Coefficient of geopolitical criteria based on Brave (B)

Priorities with respect to:
Goal: Security
>B



Source, article findings, 9/2023

Based on Figure 5, The distinguished geographical and climatic Garmasêr position did not play a massive role in making brave Kurdish women in the 20th century.

5.3 Economic Provider (E)

Regarding seeking their identity, Garmasêr Kurdish women have tried to provide for their families within Iran and Iraq borders. Indeed, due to the area's geographical and climatic position, many were farmers and gardeners.

Figure 6: The significance Coefficient of geopolitical criteria based on Economic Provider (E)

Priorities with respect to:
Goal: Security
>E



Source, article findings, 9/2023

Figure 6 illustrates that although Close to political Capital is one of the essential criteria to make a profit everywhere, the Destruction of identity as a negative factor had the first position to make more money for Kurdish women in the 20th century.

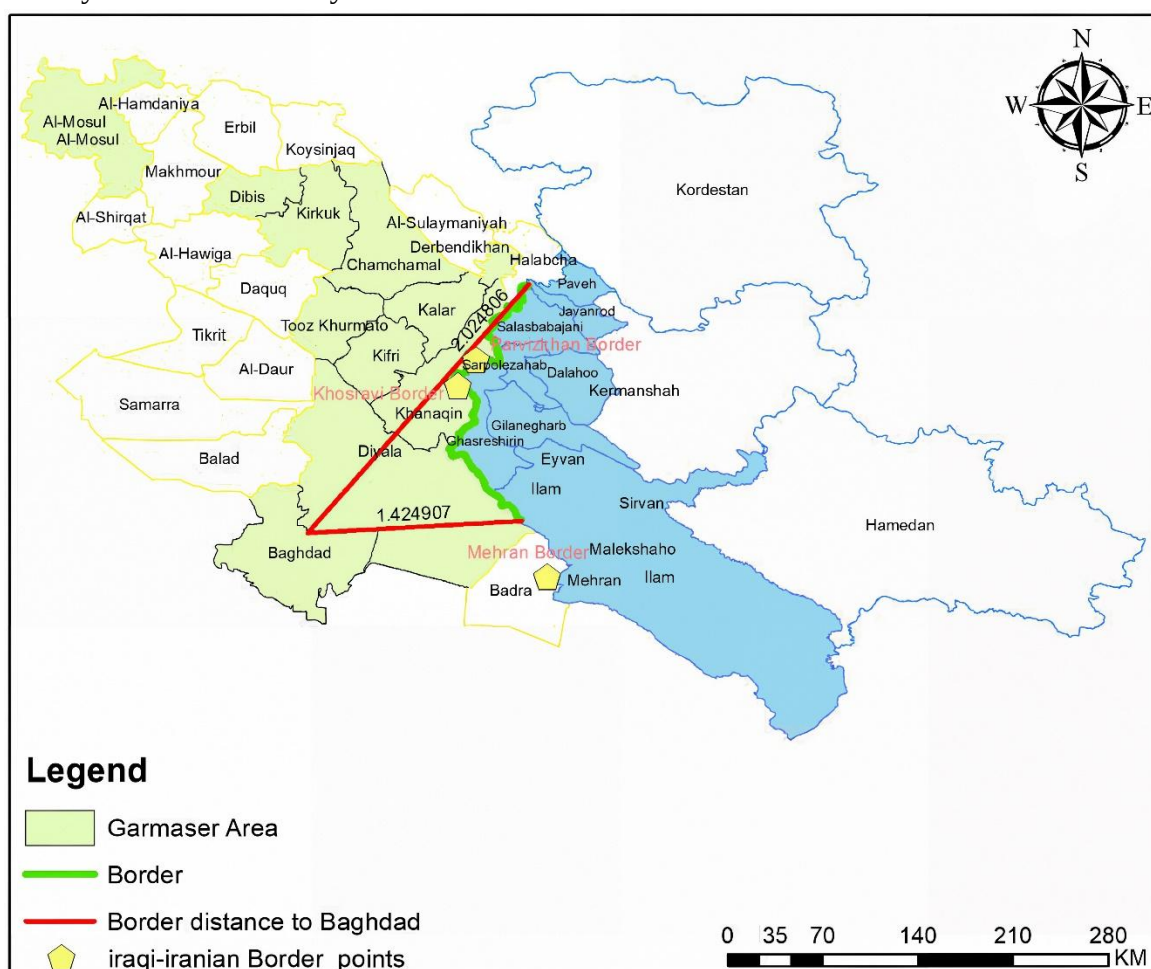
6. Determining exact geopolitical masculinity domains in Garmsir in the 20th century using GIS

New ways of thinking about GIS that can help open up new discursive spaces and inform feminist GIS practices are now sorely needed (Kwan, 2002, p. 276). Despite their limitations, GIS methods can play a role in addressing specific issues in feminist geographic research (Kwan, 2002, p. 655). Carrying out the feminist GIS method is sophisticated in border areas; it needs accurate and raw information. To this end, this article is accompanied by AHP.

To determine the Garmasêr domain based on the geopolitical masculinity criteria affecting women, after finding the basic Garmasêr map, achieved weights in AHP entered the GIS space. In Map-1, due to the significant impact of the security role in introducing geopolitical female Masculinity in the 20th century in the Garmasêr area, the most and least important centers of the four geopolitical sub-criteria, respectively, are depicted with two levels of security importance in all areas of criteria. In Map-1, the Locations between border centers and their surroundings have been visualized based on the high effect of criteria on Kurdish geopolitical

Masculinity. It is illustrated in green color with a different degree. On the other hand, the Close to the political capital center has been visualized based on the lowest effect of criteria on Kurdish geopolitical Masculinity with red color.

Map 1: Grading the security importance of two areas according to Kurdish geopolitical female Masculinity in the 20th century



Source, article findings, 10/2023

This map illustrates the Garmasêr area's geographical locations, borders, and distance to Baghdad in the 20th century. Respectively, the borders are shown on the central side of the Garmasêr area. The Border area is between Iran and Iraq, precisely towards the Khosravi, Parvizxhan, and Mehran borders. The Capital is located in the western part of it. Based on collated data by AHP, two different centers are determined. In more depth, Borders, with its green color of about .522 degrees security value and enormous benefits, is identified as the most critical center in security terms to introduce

Kurdish geopolitical female Masculinity in the 20th century. In contrast, the Close to the political Capital, with red color and about .076 security importance, is introduced as the lowest impact geopolitical center.

7. Conclusion

Garmasêr, as a disputed border area, in terms of geopolitical conditions, was a challenge and an ambiguous atmosphere for Kurdish women in the 20th century. Indeed, they have faced different challenges daily, living in ambiguity. In this article, aiming to seek geopolitical female Masculinity, twenty-four cases were randomly chosen: fifteen women and nine men between 40-60 years of age and experts in the semantic paradox of Masculinity in Kurdistan. Based on a precise interview, human and natural factors were compiled; 27 which were considered matrix input under the supervision of experts in this field and converted into eight essential criteria or compact criteria and subcriteria, secondly weighed with the help of computer software or Expert Choice; comprising Problem solver (P), Social (S), Brave (B), Economic Provider (E), The distinguished geographical and climatic position (Gc), Close to the political Capital (Cp), Destruction of identity (Di), and Locating between borders (Lb). In addition to this, eight essential criteria or compact criteria and subcriteria were prioritized by opinion polls. Of course, on a Likert Scale of 1 to 9, from the most negligible to the most impact. Likewise, for ease in proceeding with the process, most importantly, the first word of each of the eight compact criteria and subcriteria was used in Expert Choice. Respectively, each of the selected criteria, after pairwise comparison, was valued; among the chosen criteria, Social was given the highest coefficients of importance. And among the selected sub-criteria, the Locating between borders achieved the most excellent coefficient of importance. Surprisingly, regarding the existing political situation in the 20th century, Close to Political Capital as a geopolitical sub-criteria did not positively affect the creation of Kurdish female Masculinity in Garmser. Moreover, using GIS, the Garmasêr domain based on the geopolitical Kurdish female masculinity criteria and the most and least important centers of the four geopolitical sub-criteria, respectively, are depicted with two levels of security importance in all areas of criteria selected.

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