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Original Article

Landscape Design Process and Implementation for Detached House Gardens Suitable for Continental Climates

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ABSTRACT

People's interest and concern for green areas, their desire to create their own gardens and landscapes, and their passion for living and waking up in the green bring together the dream of a house with a garden. In addition, Turkey has witnessed major earthquakes due to its active fault lines. Interest and concern for detached houses has increased much more on this occasion. Since construction companies care about this demand, detached house constructions have started to increase. Currently, each house has to have its own green area and garden. In this study, a detached house with a total area of 270 m^2 and a 135 m^2 base area within a 500 m^2 area and a 365 m^2 garden were built and the landscaping project and plant design application were carried out in Bingöl, a city with continental climate characteristics. The photographs of the study were recorded step by step and criticisms and evaluations were included in terms of being an example for plant design throughout the province and similar climates.

Key words: Bingöl, Cold climate, landscape project, plant design, Villa garden designe

Karasal İklimlere Uygun Müstakil Ev Bahçesi Peyzaj Tasarım Süreci Ve Uygulaması

ÖZ

İnsanların yeşil alanlara olan ilgi ve alakası, kendi bahçelerini ve peyzajlarını oluşturma isteği, yeşilin içinde yaşama ve uyanma tutkusu bahçeli bir ev hayalini birlikte getirmektedir. Bunun yanı sıra Türkiye sahip olduğu aktif fay hatlarından dolayı büyük depremlere şahitlik etmiştir. Müstakil evlere olan ilgi ve alaka bu vesile ile çok daha fazla artmıştır. Yapı firmaları bu talebi önemsediğinden, müstakil ev inşaatları artmaya başlamıştır. Hali hazırda her evin kendine has yeşil alanı ve bahçesi olmak durumundadır. Bu çalışmada karasal iklim özelliklerini taşıyan Bingöl kentinde 500 m^2 lik bir alan içerisinde 135 m^2 taban alan toplamda 270 m^2 büyüklüğünde bir müstakil ev ve 365 m^2 lik bahçesinin peyzaj projesi ve bitkisel tasarım uygulaması yapılmıştır. Yapılan çalışmaya ait fotoğraflar aşama aşama kaydedilerek bitkisel tasarımda il genelinde ve benzer iklimlere örnek olması açısından kritikler ve değerlendirmelere yer verilmiştir.

Anahtar kelimeler: Bingöl, Bitkisel tasarım, soğuk iklim, peyzaj proje, villa bahçe düzenlemesi

INTRODUCTION

Human beings have built houses for the problem of shelter, which is one of their basic needs. They are the smallest shelters at the level of the characteristics of the structures. These structures are not only physical, but also places where people's other desires and needs are met (Rapoport, 1969). The role of houses for people is very big. It is not possible to think of these structures, which reflect the style of people who carry a large part of their lives in houses, separately from the environment they are located in. Structures and nearby parts should complement each other (Şahin and Çalık 2021). It is not possible to think of the houses where people live separately from their immediate surroundings. Since the gardens of houses are positioned together, the house

garden and the house cannot be thought separately. House gardens are a part of the person's socioeconomic status, lifestyles and cultural activities (Bilir 2019).

In terms of earthquake maps, Turkey is located on the Alpine-Himalayan earthquake fault zone in the Mediterranean Region and is one of the three most important earthquake zones in the world (Bikçe, 2017). More than 200 earthquakes have occurred in Turkey since the first quarter of the 1900s, and these earthquakes have caused the deaths of approximately 86 thousand people (Altun, 2018). When the loss of life in the earthquakes that occurred in 2020 and 2023 is added to this statistical data, unfortunately this figure exceeds 150 thousand. It has been stated that one of the precautions that can be taken against earthquakes is to prefer a transition to horizontal architecture, to abandon high-rise buildings and to turn to detached buildings (Edemen et al. 2023).

In order for people to live happily, comfortably and safely in houses, the surroundings as well as the house need to be organized. Today, residential gardens have gained importance in order to satisfy people's longing for decreasing green areas, to increase their relationship with nature and to add aesthetic value to houses (Taşkan, 2014). In this respect, houses and gardens complement each other and cannot be considered as separate from each other. Since prehistoric times, houses and gardens have developed and changed together in a way that shapes each other. In this context, the garden is an extension of the house; it has become an important and indispensable space where socialization is carried out together with the priority of work production; and where family members can fulfill their recreational needs with different actions (Altınçekiç and Şentürk 2017). In the process we live in, the importance of residential gardens has increased in order to satisfy the longing for green and to add visual value to houses as a result of the decrease in green areas and the increase in urban spaces. Residential gardens can be an element that meets the recreational needs of the individuals they live in and shows their status and lifestyle (Bhatti 2006).

The house is a whole perceived with its environment. The principles of housing design show a parallelism within its environment. The reflection of the changes in the production processes depends on the planning principles, not the plan. While the formation of the plan depends on the social culture, the elements used during the implementation of the plan and the external environment affecting the designer in the planning process depend on economic and social inputs (Yegena, 1997). The characteristics of the housing user are determined by age, education level, gender, socioeconomic structure, sociocultural structure, expectations, experiences, lifestyle and worldview. The same characteristics are valid for the residential garden user. Each house and its garden user has different characteristics. Residential gardens are in a different place, with different topographic features, different climatic features and different soil features (Demirarslan, 2005; Kumbasar, 2008; Şahin and Çalık 2021). It has been stated that four main functions such as the main entrance area, work and service area, general living area and private living area should be taken into consideration in determining the usage status in house and garden planning (Korkut 2002; Yılmaz 2007). Residential gardens are designed according to the expectations and requests of the homeowners. While performing their duties, the designer should make a design that prioritizes sustainability in addition to a functional and aesthetic design by considering the user expectations (Yılmaz 2007).

Table 1. Designe principles and elements

Design Principles	Design Elements
Line	Repetition-Rhythm
Texture	Spaced Repetition
Shape-Form	Balance
Scale	Contrast
Interval	Harmonization
Color	Dominance
Light-Shadow	Unity
Emphasis	Appropriateness
Sequence	Hierarchy
Movement	Wholeness

Of course, while doing these, the geography where the residential garden is located, climate, temperature, soil characteristics and the ecological requests of the plants that make up the garden should be taken into consideration and the design should be conveyed to the garden owner in an appropriate language and a common point should be reached. In order to obtain the desired result from landscaping works, it is necessary to know the definition of design, its principles and elements and the design process. When a good design product emerges, it means that the principles and elements are definitely included in that design product. Otherwise, the

resulting product is plain, useless and far from aesthetics. In other words, areas created without considering design principles and elements cannot go beyond being unpleasant and unpopular works that are not at peace with the users. We can list these principles and elements as follows on table 1. (Yılmaz and Yılmaz, 2004).

Design of Detached House Gardens

It has been stated that people shape their homes in different dimensions according to their own needs, their own behavior and lifestyle, with the geography, climate and cultural factors they are in, with different visual, auditory and aesthetic odors, and with conditions related to the humidity, dryness, heat and light of the air (Erzen 2006). For example, the summer and winter usage status of the garden and house, the number of adults and children living in the house, their age, gender and occupations, which architectural and green building elements the household prefers (garage, pool, pergola, children's play elements, fruit and vegetable garden, etc.), which types of plants and colors they like, whether they will personally deal with gardening, how much budget they can allocate for this work, etc. should be clarified. Thus, the uses planned to be brought should be placed on the plan as circular spots, without scale, but within certain proportions, considering their relationships with each other. The ideal function diagram forms the basis for the later stages. Therefore, this diagram should be prepared meticulously, taking into account all kinds of features (Çınar 2008).

There are 3 specific components in a detached house garden landscape design. These are the customer, the area and the house. No customer, area or house is the same. Each customer has their own characteristics, desires, wishes, lifestyle, each area is different from each other with its topography, vegetation, landscape, surroundings and other elements. Each house is also different and unique from each other in terms of architectural character, floor plans, decoration, furniture and accessories. The house garden, which the landscape architect should design by considering these 3 main elements, will reflect the lifestyle and values of the users (Bilir 2019).

Detached house gardens generally consist of 3 parts. These are;

- Front garden
- Back garden
- Side gardens (Booth and Hiss 2012).

It can be listed as. Of course, this is not valid for every residential garden. The land structure changes depending on the architecture of the houses, their positioning within the land and most importantly the size of the garden. There are many factors that the landscape architect should consider in the landscape design of a detached residential garden. Some of these are:

- The client's wishes and requirements
- Budget limits
- Existing opportunities and restrictions in the area
- Interior-exterior relationship (rooms, doors, windows)
- The architecture of the house (Bilir 2019).

Although there are some design criteria, the expectations of the homeowner are at the forefront. While some users want to plant for screening purposes in the front garden, there may be a possibility of blocking the existing view. The person may want to completely restrict the garden of his house from the outside. In such matters, the designer's duty is to realize the person's wishes by using appropriate plants. Similar situations are valid for the backyard and side garden. According to the design criteria, the backyard is separated as a living space. However, the homeowner may want to carry out this activity in the front garden. From this point of view, the designs of detached house gardens differ greatly from each other. Indeed, in the landscape design of detached house gardens, the most important factors for landscape architects are the wishes of the homeowner, the amount that can be paid for the design, the architecture of the detached house and the ecology of the region. The success of a landscape design is possible by correctly choosing and positioning the plant material used.

Plant design and its principles

Plants are the basic building blocks of landscaping studies within the scope of Landscape Architecture. They have an important place in both urban and rural area planning and design. According to Acar et al. (2003), plants have the most important place in landscape architecture studies. Plants play a major role especially in the creation of aesthetic and functional spaces and they play an important role in softening hard surfaces and materials such as stones, walls and structures used in landscapes. Plants soften hard materials and make them more natural and closer to humans. Plants realize these features only over time and add the fourth dimension, time, to the landscape. When plants are used as a composition, some design principles affect them. These principles play a role in many compositions from the juxtaposition of plants to their intended use. Plants offer the designer a wide range of options in terms of size, shape, texture, color, movement, light and shadow effects

(Aslanboğa 1997). According to Hannebaum (1998), plant design principles are; form, texture, color, simplicity, variability, emphasis, balance, order and scale (Eroğlu et al. 2005).

MATERIAL AND METHODS

The detached house in question is a 270 m^2 house built on a 135 m^2 area within a 500 m^2 plot in the province of Bingöl in the Eastern Anatolia Region and has a 365 m^2 green area. It is known that at the beginning of the project, the land was empty, the soil was not leveled and there was only a connection road made of interlocking stones from the garden entrance to the house entrance (Figure 1-2).

Figure 1. Paving stone path and side garden connecting the garden entrance to the house entrance.

Figure 2. Front garden and sidewalk

Bingöl Province is located in the Upper Euphrates section of the Eastern Anatolia Region. It is surrounded by Muş to the east, Erzurum and Erzincan to the north, Tunceli and Elazığ to the west, and Diyarbakır to the south. Bingöl Province is located between the east longitudes of 41º-20' and 39º-56º and the north latitudes of 39º-31' and 36º-28º. Apart from the city center, there are 7 districts: Adaklı, Genç, Karlıova, Kiğı, Solhan, Yayladere and Yedisu. The city center is established on a plain overlooking a branch of the Göynük River, which meets the Murat River near Genç District, in the northwest corner of the Çapakçur Plain at an altitude of 1151 meters above sea level (Caf and Yılmaz 2024).

Bingöl has a continental climate. Winter temperatures are quite low, while summer temperatures reach high values. The hottest months are July and August, while the coldest month is January. Annual Average Temperature: 12.2°C, Average High Temperature: 18.7°C, Average Low Temperature: 6.7°C, Average Sunshine Duration: 6.2 hours/day, Annual Average Number of Rainy Days: 108.6 days, Annual Total Precipitation: 945 mm(Table 2) (Anonymous 1).

Table 2. Bingöl Climate Data Table

Parameter	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Average Temperature (°C)	-2.2	-1.0	4.3	10.9	16.2	22.1	26.7	26.5	21.3	14.3	6.8	0.8	12.2
Average High Temperature (°C)	2.4	4.0	9.6	16.9	22.9	29.5	34.6	34.8	29.8	21.7	12.7	5.3	18.7
Average Low Temperature (°C)	-5.7	-4.8	0.0	5.8	10.2	14.8	19.1	18.7	13.7	8.3	2.3	-2.6	6.7
Average Sunshine Duration (hours/day)	3.4	4.5	4.8	5.6	7.1	9.1	9.4	9.0	8.1	6.1	4.5	3.3	6.2
Average Rainy Days	12.88	12.36	14.08	14.67	13.67	5.31	1.77	1.38	2.47	8.16	9.23	12.58	108.6
Monthly Total Precipitation (mm)	138.5	128.1	134.8	115.2	77.7	20.3	7.1	4.3	12.8	64.0	107.9	134.3	945.0

The highest recorded temperature in Bingöl was 42.0°C in July (26.07.2001), while the lowest recorded temperature was -25.1°C in December(27.12.1992). Winters are characterized by severe cold, whereas summers experience extremely high temperatures(Table 3). Temperature Records (1961 - 2024)

Table 3. Bingöl Extreme Temperature Data Table

Parameter	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Highest Temperature (°C)	13.3	16.2	22.9	30.5	33.9	38.0	42.0	41.3	38.1	32.1	25.5	22.8	**42.0**
Lowest Temperature (°C)	-23.2	-21.6	-20.3	-9.2	1.0	3.5	8.8	7.8	4.2	-2.4	-15.0	-25.1	**-25.1**

Project sheet drawn in line with user requests and The following criteria were taken into consideration when designing the Project;

- Determination of Functional Garden Areas (Rest, Play, Vegetable Garden, etc.)
- Balance of Hard Ground and Soft Ground
- Landscape project map has been drawn in line with principles such as Arrangements to Reduce Wind and Sun Effects
- Drought and Frost Resistant Plants
- Seasonal Plant Selection and Color Harmony
- Use of Native and Adaptive Plants(Figure 3).

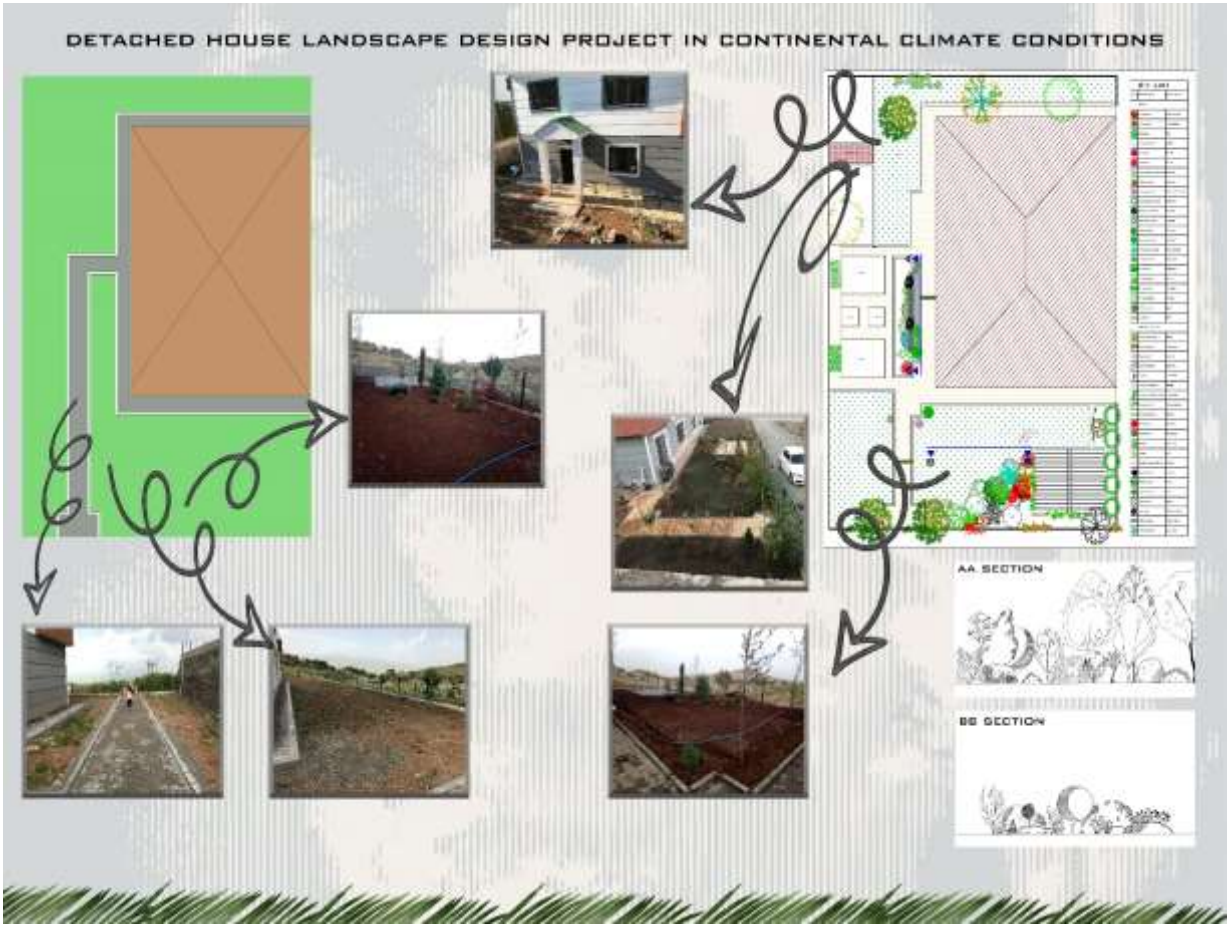

Figure 3. Project sheet

As seen in the project, 3 sides of the house are open green areas. In the west, in the backyard, 2 fruit trees were used, plum and apricot (Prunus domestica, Prunus armeniaca). In the grass area in the front, ornamental apple (Malus hybrida) and quince (Cydonia oblonga) were used, on the edge of the children's playground. In the

north, in the front garden, a hobby garden was designed in the parts facing the kitchen. Again, in the southwest of the front garden, a barbecue and fireplace area were designed (Figure 4).

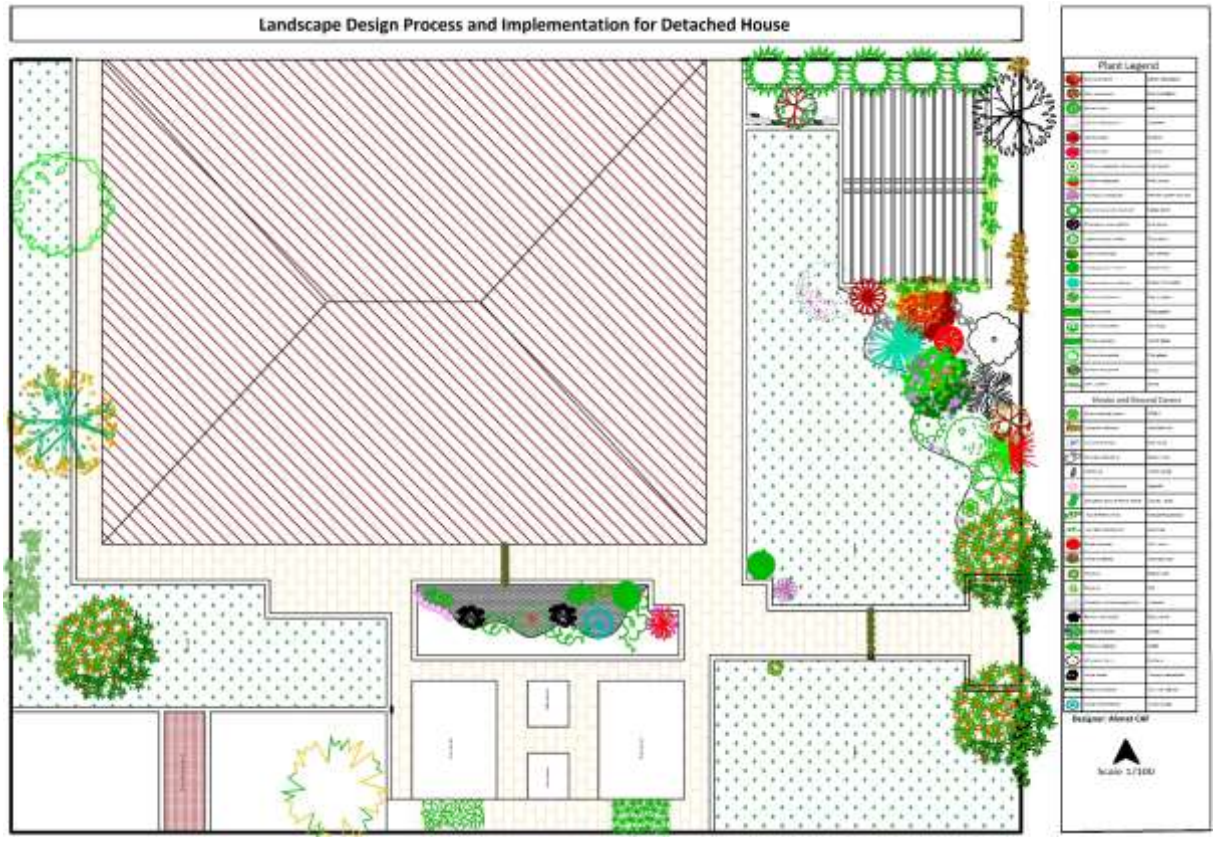

Figure 4. Landscape project and plant design

Right in front of the kitchen window, ivy roses, cane roses, thyme, carnation juniper, seasonal flowers Yucca filementosa margarite daisies and cotinus coggygria royal purple were used (Figure 5).

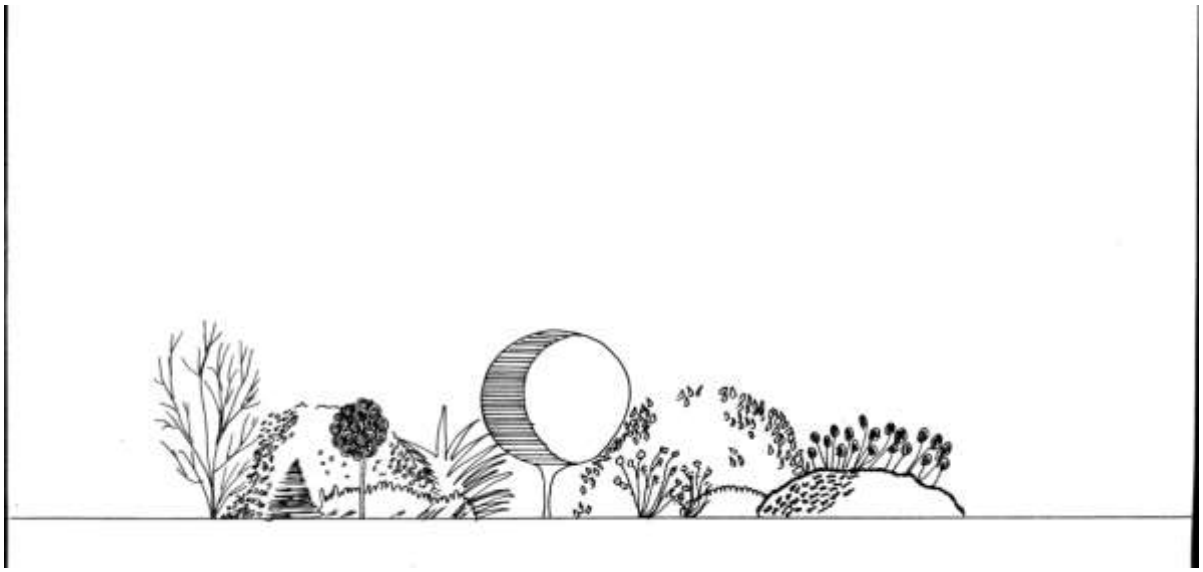

Figure 5. Front yard planting design

The large side garden to the east overlooks the kitchen and living room. 4x3m^2 pergola was designed in this section as a sitting area. It constitutes the richest part of the garden in terms of plant design (Figure 6). In this area, Syringa vulgaris, Viburnum opulus, Berberis thunbergii 'Atropupurea', Spiraea vanhouttei, Photinia

serratifolia, Prunus ceracifera, Buxus sempervirens, Picea pungens glauca globosa nana, Picea glauca 'Conica', Betula lutea, Acer campestre, Chrysanthemum sp., Senecio sp., Hyacinthus sp (Figure 6).

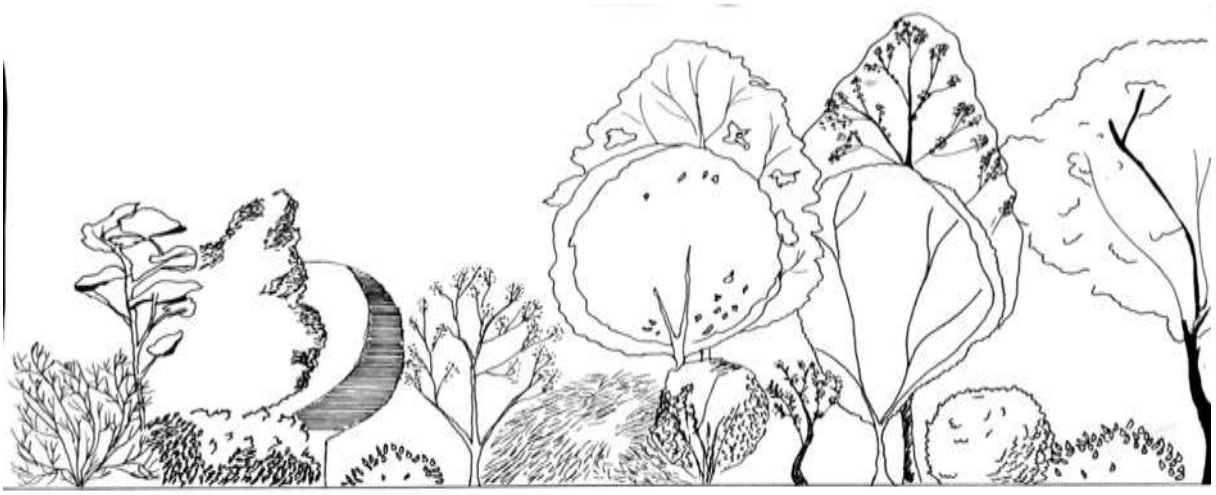

Figure 6. Side garden planting design.

RESULTS and DISCUSSION

The climate conditions of Bingöl province are close to the average values of Turkey. Therefore, the plant species used in the study can be used in many provinces with similar climates. Santolina Chamaecyparissus, known to be a temperate climate plant, was used successfully. No problems were experienced in all plants used for three years despite the harsh winters. Since the woody plants are resistant to pruning, they were kept in the desired form. The designed and applied plant composition added aesthetics to the garden in all four seasons. While Cercis ciliquastrum used at the entrance of the pergola built as a sitting area heralds spring, the scent added to the space by Eleagnus angustifolia and Lonicera caprifolium attracts users. A map consisting of the photographs obtained as a result of the project application was created (Figure 7).

Figure 7. Current status of the project after 3 years

PLANT LIST					
Symbol	Plant Name	Number	Symbol	Plant Name	Number
	Trees			Shrubs and perennial flowers	
	Acer palmatum	1		*Buxus sempervirens*	1
	Acer campestre	1		*Campsis radicans*	3
	Betula lutea	1		Chrysanthemum	10
	Cercis siliquastrum	1		Cineraria Maritima	3
	Cornus alba	1		*Dahlia sp.*	5
	Cornus mas	1		*Dianthus caryophyllus*	5
	Cotinus coggygria 'atropurpurea'	1		Juniperus procumbens 'Nana'	1
	Cotinus coggygria	1		Leucanthemum sp.	10
	Crataegus laevigata	1		Lonicera caprifolium	3
	Cupressocyparis leylandii	5		Photinia fraseri	1
	Elaeagnus angustifolia	1		Rosa multiflora	2
	Lagerstroemia indica	1		Rosa sp.	4
	Malus floribunda	1		Rosa sp.	2
	Picea glauca 'conica'	2		Santolina chamaecyparissus	2
	Picea pungens 'globosa'	1		Spirea vanhouttei	1
	Prunus armeniaca	1		Syringa vulgaris	1
	Prunus avium	1		Thymus vulgaris	3
	Prunus cerasifera	1		Viburnum tinus	1
	Prunus cerasus	1		Vinca majör	2
	Prunus domestica	1		Wisteria sinensis	1
	Sorbus aucuparia	1		Yucca filamentosa	1
	Vitis vinifera	1			

Figure 8. Plants list and number of plants used

CONCLUSION

The landscape design and plant applications implemented yielded successful results in both aesthetic and functional terms. Important findings were obtained on how sustainable landscape design can be applied in regions with continental climates such as Bingöl. The project sets an example for landscape arrangements to be made in regions with similar climate conditions. This study was conducted to prevent plant design errors frequently made in small home gardens. For example, a user who wants to plant a plane tree (Platanus orientalis) in a detached home garden with a green area of 60 m^2 should be told in technical language why not to use it. Or, in a region with a water problem, the costs and difficulties of maintenance, irrigation, pruning, fertilization of grass areas should be explained to the user. It will be useful in terms of providing literature on plant materials that can be used in climates with similar climates. Among the woody plants used; *Acer sp., Betula sp., Cornus alba, Cotinus sp.* were used for their spring and autumn leaf coloration. *Prunus sp. and Malus sp.* were used for their flower and fruit effect. *Juniperus sp. and Picea sp*. were preferred for their form. *Lonicera sp., Syringa sp.*

Eleagnus sp., Rosa sp. were used for their flower scent and form. Seasonal flowers were preferred for their color, scent and form features. All of the plants used were adapted to the ecological conditions of the province.

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Declaration of interests
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Author Contributions
Ahmet CAF :Conceptualization; data curation; formal analysis; funding acquisition; investigation; methodology; project administration; software; writing— original draft; writing—review and editing.

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REFERENCES

Acar, C., E. Demirbaş, P. Dinçer, H. Acar. 2003. Anlamsal Farklılaşım Tekniğinin Bitki Kompozisyonu Örneklerinde Değerlendirilmesi. S.D.Ü. Orman Fakültesi Dergisi, Seri: A, Yıl: 1, ISSN:1302-7085, s: 15-28. Isparta

Altınçekiç, H., & Şentürk, E. (2017). Cumhuriyet Döneminde Ev Bahçelerindeki Değişimler ve Güncel Eğilimlerin İrdelenmesi. Journal of Architectural Sciences and Applications, 2(2), 42-59.

Altun, F. (2018). Afetlerin Ekonomik ve Sosyal Etkileri: Türkiye Örneği Üzerinden Bir Değerlendirme. Sosyal Çalışma Dergisi,2(1), 1-15.

Anonymous 1. https://www.mgm.gov.tr/veridegerlendirme/il-ve-ilceler-istatistik.aspx?m=BINGOL erişim tarihi 25.03.2025.

Aslanboğa, İ. 1997. Fiziksel Çevrenin Belirlenmesinde Bitki Örtüsünün İşlevleri. Doğayı Korumada Kent ve Ekoloji Sempozyumu Bildiriler Kitabı. S: 166-170. İstanbul.

Bhatti, M. 2006. 'When I'm in the garden I can create my own paradise': Homes and gardens in later life. The Editorial Board of The Sociological Review, 54(2): 318-341, United Kingdom.

Bikçe, M. (2017). Türkiye'deki Depremlerde Alınan ve Alınabilecek Önlemler.Uluslararası Mühendislik Araştırma ve Geliştirme Dergisi,9(2), 24-31.

Bilir, Z. I. (2019). Müstakil konut bahçesi peyzaj tasarımında peyzaj mimarı ve ev sahiplerinin iletişimlerinin sağlanması ve beklentilerinin belirlenmesine yönelik bir araştırma. Ankara üniversitesi Fen bilimleri enstitüsü Yüksek lisans tezi

Booth, N. K., ve Hiss, J. E. 2012. Residential landscape architecture, Pearson Education INC, 112-445, USA.

Caf, A., & Yılmaz, H. (2024). Bingöl-Erzurum Karayolu Güzergâhının Görsel Kalite Açısından Değerlendirilmesi. Türk Tarım ve Doğa Bilimleri Dergisi, 11(1), 57-79.

Caf, A., Irmak, M. A., Yılmaz, H. (2016). Woody Plants Used in Green Spaces of Bingöl City and Their Use Aims.

Çınar, S. (2008). Ev bahçesinde peyzaj tasarımı süreci. Journal of the Faculty of Forestry Istanbul University, 58(1), 73-90.

Demirarslan, S. (2005). Türk insanı için yapılan konutlarda ya-şam kalitesinin elde edilebilmesi için gerekli faktörler. Ko-nut Değerlendirme Sempozyumu 2004, İTÜ Mimarlık Fa-kültesi Yayınları, İstanbul.

Edemen, M., Okkay, M., Tuğrul, R., Kurt, M.Ş., Bircan, O., Yoldaş, H., Aslan, A. (2023). Deprem nedir? Nasıl oluşur? Türkiye'de Oluşmuş Depremler ve Etkileri Nelerdir? Depremlere Karşı Alınabilecek Tedbirler Hususunda Öneriler. International Journal of Social and Humanities Sciences Research (JSHSR), 10(93), 719-734.

Erdem, E. 2008. Maslow'un İhtiyaçlar Hiyerarşisi Kuramına Göre Konutların Swot Analizi ile Değerlendirilmesi. Yüksek lisans tezi, Ankara Üniversitesi, Fen Bilimleri Enstitüsü, Ev Ekonomisi(Aile ve Tüketici Bilimleri) Anabilim Dalı, 1-9, Ankara.

Eroğlu, E., Kesim, G. A., & Müderrisoğlu, H. (2005). Düzce kenti açık ve yeşil alanlarındaki bitkilerin tespiti ve bazı bitkisel tasarım ilkeleri yönünden değerlendirilmesi. Journal of Agricultural Sciences, 11(03), 270-277.

Hannebaum, L. G. 1998. Landscape Design a Practical Approach Four Edition. ISBN: 0-13-163230-2. New Jersey.

Korkut, A.B., 2002. Peyzaj Mimarlığı. Hasad Yayıncılık Ltd. Şti.,167, İstanbul.

Kumbasar, S.B. (2008). Konut Gelişiminde Gelecek Vizyonları. Yüksek lisans tezi, Yıldız Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Mimarlık Anabilim Dalı, İstanbul.

Rapoport, A. (1969). House form and culture. Prentice Hall In-ternational, London.

Şahin, C., & Çalık, H. (2021). Konut Bahçelerinde Peyzaj Uygulamaları Üzerine Bir Çalışma: İzmir İli Kemalpaşa İlçesi Örneği. Mehmet Akif Ersoy Üniversitesi Fen Bilimleri Enstitüsü Dergisi, 12(1), 41-53.

Taşkan. G. (2014). Bartın Kenti Geleneksel Konutlarındaki Ya-pısal Değişimlerin Bahçe Mekânı ve Kullanılan Bitki Mater-yaline Yansımaları. Bartın Üniversitesi Fen Bilimleri Ensti-tüsü, Peyzaj Mimarlığı Anabilim Dalı, Yüksek Lisans Tezi. Bartın.

Yegena, M.B., 1997. Mimari Açıdan Konut ve Konut Çevresinin işlevsel Ve Biçimsel Sorgulamaları Üzerine Bir Araştırma. Mimar Sinan Üniversitesi Fen Bilimleri Enstitüsü Yüksek Lisans Tezi (Yayınlanmamış), 43, İstanbul.

Yılmaz, H., Yılmaz, S., 2004. Peyzaj Mimarlığında Tasarım Süreci ve Proje Örnekleri. Atatürk Üniversitesi Ziraat Fakültesi Ders Yayınları No: 218, Erzurum.

Yılmaz, S. (2007). Erzurum kentinde konut bahçelerinin peyzaj tasarım ilkelerine göre incelenmesi üzerine bir araştırma. Atatürk Üniversitesi Ziraat Fakültesi Dergisi, 38(1), 25-35.