

# GESTALT LAWS IN BOOKING WEBSITE

*Hilal Özhan, Ceren Kurtuldu, Gizem Erpek*

## Introduction

Web designers use various methods to attract user experience and perception, one of which is gestalt principles. The gestalt principles consist of several principles that describe how the human brain perceives visual information. This theory is shaped around five basic principles of figure-ground relationship, proximity, similarity, completion, continuity, and simplicity. The expectation in the Gestalt principles is the management of visual perception as desired and thus providing the user with an effective experience. We will examine whether the Gestalt principles have been used in the Booking.com application, whether this principle really affects our perception, which ones are used for what purpose, and we will examine these by experiencing.

## Parameters

Web content:

Established in Amsterdam in 1996, Booking.com has evolved from a small Dutch start-up to one of the world's leading digital travel companies. The mission of Booking.com, part of Booking Holdings Inc. (NASDAQ: BKNG), is to make it easier for everyone to explore the world.

Booking.com, investing in technology that helps remove the friction in travel, seamlessly brings together millions of travellers with wonderful places to stay, from homes to hotels and much more, various transportation options, and unforgettable experiences. Booking.com, one of the world's largest travel marketplaces for established brands and entrepreneurs of all sizes, enables facilities around the world to reach a global audience and grow their businesses.

Booking.com is available in 43 languages and offers more than 28 million total reported accommodations, including over 6.6 million homes, apartments, and other unique places to stay. Wherever you want to go or whatever you want to do, Booking.com makes it easy and is there for you with customer support 24/7. (The website history is taken from its own website.)

## Literature Review

“Hend Alawadhi(2010) Form perception: An Interactive guide to the Gestalt principles” this study focuses on Gestalt principles on form perception. It also provides examples in communication, design and art fields.

“Chang, D.; Dooley, L. and Tuovinen, J. E (2002) Gestalt Theory in Visual Screen Design — A New Look at an Old Subject” this article is about Gestalt theory in visual screen design and how we can apply Gestalt principles into modern screen design.

The article "Using the Gestalt Principles of Visual Aesthetics in Designing E-Learning Graphical User Interface" focuses on Gestalt principles for visual aesthetics in e-learning graphical user interfaces.

"Research on Minimalism in Interface Design Based on Gestalt Psychology" this study examines the optimization of web interfaces using Gestalt principles and investigates how to create and organize a user-friendly interface accordingly.

## **Methodology**

In order to examine the Booking.com website with gestalt principles, a visual examination was first made to determine gestalt principles such as "similarity", "continuity", "closure", "figure-ground relationship". Data was collected through a visual inspection and researcher observation to evaluate how Gestalt principles were applied on the Booking.com home page. Then, key pages of Booking.com, such as the home page and hotel details, were analyzed in terms of gestalt principles. This analysis included examining factors such as page layout, use of color, symmetry, grouping, and focus. Finally, user testing and eye tracking studies were conducted to understand how gestalt principles are integrated into Booking.com's user experience. This methodology helped us understand how Booking.com's user interface is perceived and how it affects the user experience. Platforms such as Google Scholar and Medium were crawled. The research scope is limited to the Booking.com page.

## **Findings**

### **Proximity**

In terms of grouping, it can be easily understood that each area and title on the site has been grouped appropriately and noticeably, and there is an option area on the home page where we can choose what we want to make a reservation for.

The site uses a lot of pictures, the options are designed to attract the user's attention with the pictures that support them, however, this situation looks busy and crowded with the many options and the font and writing styles of the articles.

The site is divided into three main parts. In the first part, there is a direct search bar where you can choose what you want to make a reservation and search where and on what dates. In the second part, there are options for users who do not have a specific location in mind and places liked by other users.

In the last part, there is a section where the user's e-mail is requested and other options you want to search for, but there is no area on the entire page where you can directly contact or access in case of a certain error. Although the site is mostly in order, as mentioned above, the home page is too complicated and has too many interconnected options. Except for the home page, which is prone to confuse the user, the car, plane and airport taxi reservation page is divided into three parts to prevent too much confusion and serve the intended purpose. The part with the category and emblem at the beginning consists of an area for reservation and other options at the bottom. Apart from this, on the other page, which is opened after the basic options in the accommodation section, the architecture of the page, apart from the general architecture, is divided into three horizontal parts, the middle part is divided into two vertically, these two parts are on the left, other desired criteria for accommodation can be selected, and on the right side, we can see the accommodation options that meet the criteria.

Briefly elements that are closer are seen like a group. It seems like there is five different parts in these examples.

Ülkeler  
Bölgele  
Şehirler  
Semtler  
Havaalanları  
Oteller  
Simgesel Yapılar

Evler  
Daireler  
Tatil Köyleri  
Villalar  
Hosteller  
Oda ve Kahvaltılar  
Konukvele

Konaklayacak benzersiz yerler  
Değerlendirmeler  
Aylık konaklamaları keşfedin  
Sezonluk fırsatlar ve tatil fırsatları  
Traveller Review Awards

Araba kiralama  
Uçuş aracı  
Restoran rezervasyonları  
Booking.com Seyahat Temsilcileri

Koronavirüs (COVID-19) hakkında sıkça sorulan sorular  
Booking.com hakkında  
Müşteri Hizmetleri yardımı  
Ortaklar için yardım sayfası  
Careers  
Sürdürülebilirlik  
Basın merkezi  
Güvenlik kaynak merkezi  
Yatırımcı ilişkileri  
Şartlar ve koşullar  
Ortak ihtilaf çözüm merkezi  
Çalışma şeklimiz  
Gizlilik ve Çerez Bildirimi  
MSA Bildirimi  
Kurumsal iletişim  
İçerik kuralları ve raporlama  
Fiyat Eşitlemesi Yapıyoruz

#### Yakınlarda neler var?

Parade Ground	950 m
Activities Area	1 km
NS Johnson Campfire Circle	1,3 km
Kurth Kiln Scout Loop	1,7 km
Lehmann Swamp Wildlife Reserve	4,4 km
Gembrook Sports Ground	6 km
Gembrook Recreation Reserve	6 km
Mortimer Picnic Ground	8 km
Josie Bysouth Reserve	8 km
Crocodile Park	8 km

#### Restoranlar ve kafeler

Restoran • Forest Edge	3,7 km
Restoran • Main Street Fish & Chips- Gembrook	5 km

#### Popüler turistik noktalar

Dandenong Ranges Botanik Bahçesi	19 km
----------------------------------	-------

#### Toplu taşıma

Tren • Lakeside	11 km
Tren • Nar Nar Goon	19 km

#### En yakın havaalanları

Moorabbin Havaalanı	42 km
Essendon Fields Havaalanı	61 km
Melbourne Havaalanı	67 km

Also, in here it seems like there is three different columns with three rows.



**İstanbul**  
9 araba kiralama noktası  
Ortalama **TL 1.335,68** günlük fiyat



**Alanya**  
4 araba kiralama noktası  
Ortalama **TL 1.386,13** günlük fiyat



**Side**  
1 araba kiralama noktası  
Ortalama **TL 1.152,21** günlük fiyat



**Nevşehir**  
1 araba kiralama noktası  
Ortalama **TL 1.454,59** günlük fiyat



**Fethiye**  
1 araba kiralama noktası  
Ortalama **TL 1.183,32** günlük fiyat



**Bodrum**  
4 araba kiralama noktası  
Ortalama **TL 1.698,76** günlük fiyat



**Konya**  
3 araba kiralama noktası  
Ortalama **TL 1.647,69** günlük fiyat



**Gaziantep**  
2 araba kiralama noktası  
Ortalama **TL 1.336,57** günlük fiyat



**İzmir**  
2 araba kiralama noktası  
Ortalama **TL 2.154,23** günlük fiyat



Konaklama



Uçak biletleri



Araba kiralama



Turistik noktalar













Havaalanı taksileri

## Similarity

Similarity is about elements that look similar to each other as in icons, text size, text font, images, colour etc.

Similarity and continuity are achieved through the images used on the site through the dimensions in the images and the way the text is positioned here.

These are some examples from the website.

 Tesiste kahvaltı sunuluyor mu? >	 Havaalanı transfer hizmeti var mı? >
 Burada aracımı park edebilir miyim? >	 Evcil hayvanımı getirebilir miyim? >
 Restoran açık mı? >	 Sigara içilmeyen odalar var mı? >
 WiFi koşulları neler? >	 Burada oda servisi var mı? >
 Spa var mı? >	 Özel banyolu odalar var mı? >

#### Popüler filtreler

<input type="checkbox"/> Ücretsiz iptal	21
<input type="checkbox"/> Plaj kenarı	2
<input type="checkbox"/> Oteller	10
<input type="checkbox"/> Kahvaltı dahil	4
<input type="checkbox"/> Daireler	1
<input type="checkbox"/> Ücretsiz Wi-Fi internet bağlantısı	20
<input type="checkbox"/> Konukevleri	1
<input type="checkbox"/> Çok iyi: 8+	9
Konuk değerlendirmelerine göre	

#### Öğün

<input type="checkbox"/> Kendinden mutfaklı	8
<input type="checkbox"/> Kahvaltı dahil	4

## Figure Ground

The main attraction, the thing that catches our eye the most is figure ground. It can be about the colour or unique shape of the elements.

The most obvious direct link appears in the search bar provided on the home page for us to search for where to go. With the colors and folding of the search bar, the search bar appears in the front and attracts direct attention. In addition, figure ground was applied by changing the ground colors within the site, for example, in the area where the flights are shown, the areas were divided by using three colors: blue, yellow and white. In addition, we see a new area was created by using darker gray in car rental, and many more examples like this are clearly visible.

Arasayfa > Oteller > Tüm çiftlik evleri > Avustralya > Victoria > Gembrook > Carinya Park (Çiftlik evi, Gembrook (Avustralya) fırsatları

Genel Bakış Bilgi ve fiyatlar Özellikler Tesis kuralları Şu ayrıntılara dikkat Konuk değerlendirmeleri (34)

**Ara**  
Seyahat noktası/tesisi adı:  
Gembrook  
Check-in tarihi:  
10 Haziran 2024, Pazartesi  
Check-out tarihi:  
15 Haziran 2024, Cumartesi  
5 gecelik konaklama  
2 yetişkin - 1 çocuk - 1 oda  
☐ İş için seyahat ediyorum  
**Ara**

**Carinya Park**  
2405 Gembrook-Launching Place Road, 3783 Gembrook, Avustralya -  
Mükemmel konum - haritayı göster

**Fevkade**  
34 değerlendirme: **9,2**  
"Great place to relax for the weekend, you just feel at peace with nature"  
Liam Avustralya  
**Çalışanlar** **9,6**  
**+5 fotoğraf**

Gembrook'a 8 km mesafede, Dandenong Sıradagları'nın tepelerinde sakin bir ortamda yer alan Carinya Park, barbekü

**Haritada göster**  
Map data ©2024

Gembrook'a 8 km mesafede, Dandenong Sıradagları'nın tepelerinde sakin bir ortamda yer alan Carinya Park, barbekü olanakları ve bahçe sunmaktadır. Tam donanımlı mutfak ve özel banyo da mevcuttur. Kır evinde dağ manzaralı bir balkon vardır.

Tesis meyve bahçeleri, orman ve padokların manzarasına sahiptir. Kır evinde gardirop, düz ekran TV, oturma alanı ve DVD oynatıcı bulunmaktadır.

Konuklar Gembrook'ta ve çevresinde yolun karşısında yer alan Kurth Kilni'de yürüyüş gibi aktivitelerin keyfini çıkarabilirler.

Carinya Park, Clinda'ya 35 km, Emerald'a 20 km uzaklıktadır. En yakın havaalanı olan Melbourne Havaalanı 95 km mesafededir.

Çiftler özellikle burayı tercih ediyor - iki kişilik bir seyahat için bu tesise **9,2** puan verdiler.

Tesis açıklamasındaki uzatık © OpenStreetMap kullanılarak hesaplandı.

**En popüler özellikler**  
☒ Ücretsiz otopark ☒ Sigara içilmeyen odalar ☒ Bebek karyoları (talep üzerine)

**Tesisin öne çıkan noktaları**  
**5 gecelik konaklama için mükemmel!**  
Popüler konum: Son kalan konuklar yüksek puan veriyor (9,3)  
**Özellikler:**  
☒ Bahçe manzarası  
☒ Dağ manzarası  
☒ Tesis bünyesinde ücretsiz özel otopark mevcut  
**Rezervasyon yap**

**Yer Durumu**  
Fiyatlar TRY birimine dönüştürüldü  
10 Haz, Pzt — 15 Haz, Cmt  
2 yetişkin - 1 çocuk - 1 oda  
**Aramayı değiştir**

Konaklama Tipi	Konuk sayısı	5 gecelik fiyat	Seçimleriniz	Tatil evi seç
----------------	--------------	-----------------	--------------	---------------

## Sıradaki konaklamanızı bulun

Oteller, evler ve çok daha fazlasındaki fırsatları arayın...

Nereye gidiyorsunuz?

10 Haz, Pzt — 15 Haz, Cmt

2 yetişkin - 0 çocuk - 1 oda

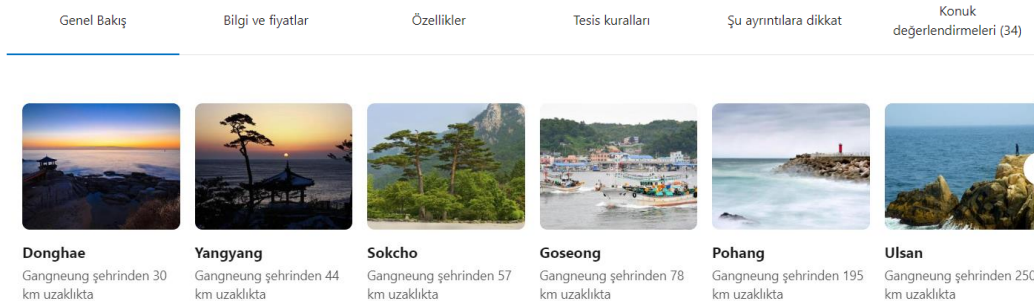
**Ara**

### Continuation

For closure on the site, an example can be given directly to the section on the home page where options such as accommodation and car rental are selected. Here, a closeness has been established between them by showing them side by side in the same font and with similar images. Again, the part where we directly search is similar on all pages, and the blocks inside the yellow frame provide closeness and integrity in that part. Apart from this, we also see the principle of proximity in the pictures. In the pictures created in a similar way and in the texts describing the pictures, closeness is used by using the same size and type side by side.

Again, in the car rental section, car rental brands are listed in similar sizes to ensure continuation.

Briefly elements that are similar by design makes it look like there is a continuation, for example even if there are six columns we perceive them as whole.

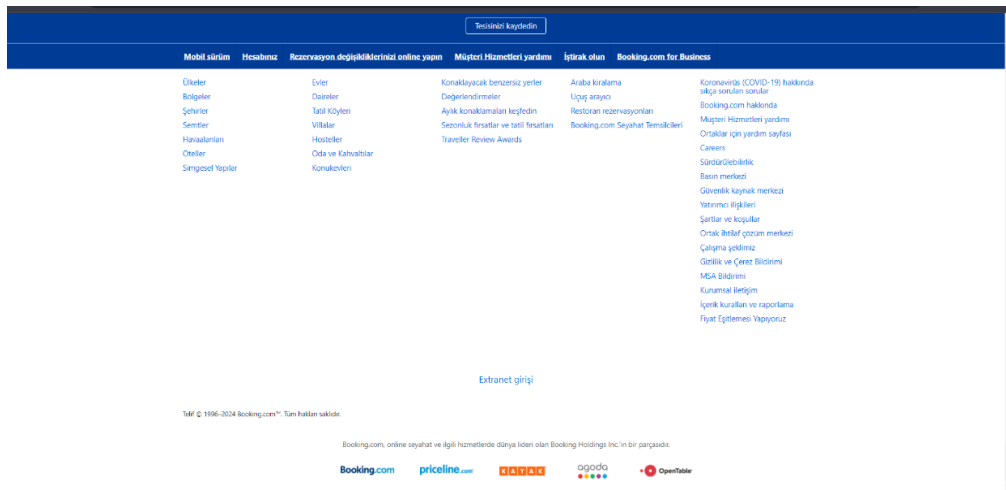


### Popüler araba kiralama markaları



### Closure

In closure law we tend to complete the picture by closing the gaps, we don't see many examples of this law in this website but here, we draw the straight line at the bottom in our minds and since there is a line at the top.



### Discussion

We come across the gestalt principles in the Booking application, but the adequacy and scale of its use can be debated. For example, the abundance of information at the search points and on the main page, as well as the excess of option choices in our reservations, could negatively affect the user experience. The site usage with the gestalt principles could have been more useful and understandable, which would allow all target audiences to use it, but the excess of information and options in the search seems to prevent this.

### Conclusion:

Although it is not enough, Booking.com has benefited from the gestalt principles. A user-friendly interface has been designed by providing a sense of unity and continuity throughout the site.

We encounter the principles of proximity and similarity a lot on the site, and thanks to these, we can perceive the intended distinction even if there is a lot of information, but the lack of closure usage shows the negative impact of the lack of principle usage on perception. As a result, it can be said that Booking.com has a design that is in line with the gestalt principles.

## References

- Alawadhi, H. (2010). Form perception: An Interactive guide to the Gestalt principles.
- Chang, D. (2002). Gestalt theory in visual screen design. In *7th World Conf. Comp. Edu., 2002*.
- Li, Y., & Fu, K. (2022, November). Research on Minimalism in Interface Design Based on Gestalt Psychology. In *2022 International Conference on Science Education and Art Appreciation (SEAA 2022)* (pp. 825-837). Atlantis Press.
- Khamis, M. H., Azni, Z. M., Abd Aziz, S. H., & Aminordin, A. (2023). The Integration of Gestalt Theory to the Graphic Design. *IJARBS*, 13, 2496-2502.
- Sarioğlu Erdoğan, G. P. (2016). Temel tasarım eğitimi: Bir ders planı örneği.
- Eryayar, E. (2011). Endüstri ürünleri tasarımında Gestalt teorisi uygulaması. *Journal of World of Turks*, 3(2), 125-133.
- Yan, Y., Ren, J., Sun, G., Zhao, H., Han, J., Li, X., ... & Zhan, J. (2018). Unsupervised image saliency detection with Gestalt-laws guided optimization and visual attention based refinement. *Pattern Recognition*, 79, 65-78.