

APPENDIX IV



Nezahat Gokyigit Botanic Garden

INTERPRETATION MASTER PLAN

Darwin Initiative project in collaboration
with the Royal Botanic Garden Edinburgh

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The importance of interpretation

Interpretation aims to engage and inspire leisure time visitors about plants and the work of the Garden. This is very different to formal education where the individual is required to listen and learn.

A useful definition of interpretation is:

“Interpretation is an educational activity that reveals meanings and relationships through the use of original objects and first-hand experiences ... It is more than simply to communicate facts.”

Freeman Tilden

Interpretation at NGBB

Established in 1995 as a memorial park, the Nezahat Gokyigit Botanic Garden (NGBB) was officially opened in 2003 as a centre for plant research, education and conservation.



The Garden is already attracting a large number of school children on organised school visits, participating in an established education programme. The number of general public visitors is at present unknown, but probably exceeds the number of school children. Visitor numbers will increase as the Garden develops and access to the Garden is improved.

Green space is extremely limited in the Istanbul area and the Garden only exists at all as it occupies land at a motorway intersection that cannot be built upon.



People visit mainly for leisure and recreation and many are not currently aware of the important work the NGBB does. Interpretation of the collections, features and landscape of the NGBB offers an opportunity to tell visitors about biodiversity in Turkey and why it is so valuable. It also provides an effective means of publicising the work of the NGBB and its sponsoring trust, the ANG.

In addition to providing the visitor with orientation and information about the Garden, interpretation tries to connect people with their environment and the importance of plants, and hopefully have some influence on their behaviour.

Along with raising awareness, benefits to the NGBB from good interpretation include increased visitor numbers, a higher media profile and greater appreciation and support from government, non-government and donor agencies.

Objectives of the Interpretation Master Plan

Interpretation in the Garden should raise awareness. It should also aim to influence the way people feel about their environment and how they behave towards it. After visiting NGBB and experiencing the interpretation people should:

- Understand the meaning of biodiversity and know why biodiversity conservation is a priority for Turkey.
- Understand the aims and work of the NGBB and ANG.
- Have enjoyed a rewarding and meaningful visit to a beautiful botanic garden.

These objectives are guided by the overall objectives of NGBB:

- To increase public awareness of the importance and value of plants as the sole guarantee of life on Earth and its continuation.
- To carry out scientific and educational activities on the World's plant life and the rich flora of Turkey, to establish and promote well documented collections and serve as a plant information centre.
- To support World biodiversity by protecting endemic, rare and endangered plants.
- To explore the connections and relationships between plants and people, and to disseminate the accumulated cultural heritage in this area.
- To research and display plants adapted to drought that have potential to fight soil erosion and desertification arising from climate change.

Topics and themes

The work of NGBB falls within the following topics:

1. Conservation of rare and endemic Turkish plants
2. Oaks of the World
3. Bulbous plants
4. Medicinal and aromatic plants
5. Plants of arid lands
6. Economic plants

Interpretation is achieved by developing themes from these topics. Themes are whole sentences that focus the subject matter of a particular piece of interpretation such as a talk, panel, leaflet etc.

An example could be:

Topic – Medicinal plants.

Theme – Medicinal plants are threatened by over collection.

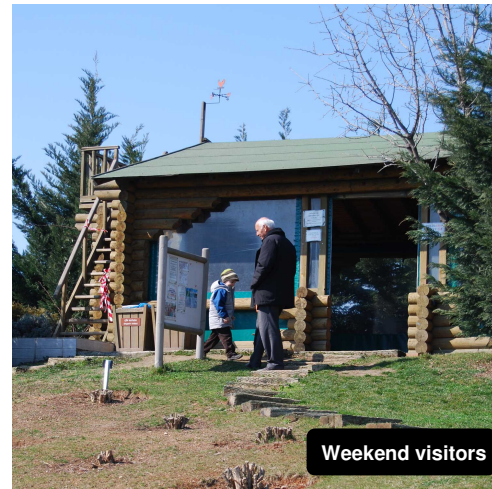
It is possible to expand the information included by using sub-themes, depending on the length of talk, size of panel etc.

Audiences

The NGBB is a popular recreational destination, especially for people from the surrounding area of Istanbul. The Garden also has an established education programme with around 6,000 school children participating since January 2006 and many other unofficial school visits.



Estimates of how many members of the general public visit the Garden are not currently made on a regular basis. During the writing of the Interpretation Master Plan visitor numbers were estimated on two consecutive days: Friday 23rd February 250, and Saturday 24th 634 visitors. Regular monitoring of the general public visiting the Garden will become increasingly important as access to the Garden is improved.



There is no public transport link to the Garden at present. Visitors mostly arrive by private car, taxi or private minibus.

However, this situation is likely to change in the near future with the development of adjacent land providing access to a picnic area on NGBB land which will be linked by a footbridge to the Garden.

The audience figures are expected to increase during the next few years as the Garden matures and develops. Currently visitors can be divided into three groups.

- Istanbul residents – families, young people and adults from the surrounding area who visit the Garden for recreation and picnics. This activity is weather dependent and seasonal.

- Organised groups – primary and secondary school students and their teachers, college students and groups of visiting scientists.
- International tourists – foreign visitors on site-seeing visits who may wish to get some information on the Turkish flora and vegetation before travelling on to other more distant parts of the country.

As yet no information exists on visitor's prior knowledge of biodiversity or the work of the NGBB. This could be established by means of a questionnaire survey. However, it is generally assumed that at present nearly all Istanbul residents visit the Garden with the prime purpose of recreation and have very little prior knowledge of the real mission of the Garden.

Types of interpretation

Interpretation media can be divided into live interpretation, exhibits, publications, signs and websites. NGBB already has experience of all of these types of interpretation, but opportunities exist to further develop all areas.

Media – Live interpretation

This can take the form of an introductory talk, guided tour, demonstration, workshop or performance. Live interpretation is one of the most effective interpretative techniques as it is flexible and allows for interactivity. Talks or



tours can be geared towards particular audiences – ages, abilities, language – and weather conditions.

The opportunity for people to handle objects and use their senses makes live interpretation very powerful. Drop in sessions can work particularly well as people can stay for the length of time they are comfortable with.

If possible live interpretation should make use of expert figures in both science and horticulture. The opportunity to talk to an expert is generally a valued experience for a visitor.

- **Guided Tours.** NGBB staff already have experience in guiding groups in the Garden but as yet there are no regular tours offered to the public. As staff time is limited activities are often limited to meeting specialist and educational groups only. Consideration should be given to providing regular public tours through the use of volunteer guides.
- **Activities and events.** Practical demonstrations (for example, taking cuttings or composting), practical activities (for example, games, art classes or making sessions) and performances (for example, drama, music or storytelling) can also be extremely popular and effective ways

of presenting ideas on topical and relevant issues. At present the Garden lacks the resources to provide a regular programme of such events or activities. Collaboration with other organisations may be one way of setting up public events and activities (see collaboration section).

- **Special events.** If it is impractical to present live interpretation on a regular basis then consideration should be given to taking part in national or international events. For example, 2008 is UN International Year of the Potato and International Biodiversity Day is held on May 22 each year. One advantage of joining in with these wider initiatives is the publicity that they offer for events at the Garden.

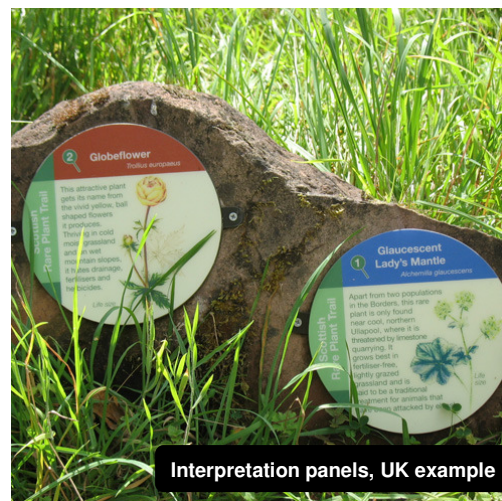
Media – Exhibits

This can take the form of panels, displays, exhibitions or audio-visual media. It has the advantage of being available continuously or on demand without prior booking but has the disadvantage of being less flexible and interactive than live interpretation.

Media – Panels

This is one of the most popular types of interpretation. In recent years technological advances in printing has led to a whole range of new processes and materials. It is now possible to produce high quality, full-colour panels, incorporating text and illustrations on a wide range of different materials. Manufacturers guarantee a minimum lifespan of 5 years, even in outdoor conditions.

Although the cost of such signs is reducing they still represent a considerable financial investment.



Interpretation panels, UK example

Given that the Garden is developing and changing rapidly at present it may be more appropriate to produce interpretation panels in-house. This provides flexibility and a lower cost of production. Paper, ink and lamination technologies now allow long-lasting panels of A3 size to be produced in-house.

Appendix 1 provides a detailed specification and costing of the equipment and materials required to produce such interpretation panels.

An example of an A3 interpretation panel about the bulbous plant collection is provided in Appendix 2 along with the planning process that was carried out prior to writing the text of the panel.

All panel boards intrude on the landscape and they should be used sparingly and sensitively to enhance the aesthetic quality of the Garden. It is best to do less but do it well.

A proposal for a suite of 14 interpretative panels is given in Appendix 3.

Media – Exhibitions

The Gazebo has already been used for exhibitions. The building has limited potential as an exhibition venue as it is a covered outdoor space with no lighting, heating or air conditioning. Permanent buildings cannot be erected, but a purpose built exhibition space could be constructed in the area that will become the main visitor entrance. Until such a building exists exhibitions will be a minor component of interpretation. Exhibitions in collaboration with other organisations could be considered as a way of raising the profile of the Garden.

Media – Audio-visual

A video about the Garden has already been produced and the Education Room provides an ideal venue for periodic showing of a film to visiting groups. However, due to the heavy use of this facility by school groups another venue

for showing film is required if it is to be regularly available to the public visitor. This could be part of an exhibition space.

An audio guide could be developed, but careful consideration needs to be given to the fact that the Garden suffers from high levels of noise pollution from the surrounding motorway.



Audio guide labels, UK example

Media – Publications

Publications include map leaflets, brochures, guidebooks, teacher's guides and more specialised publications. The advantage of publications is that they can be read in advance of a visit and can be taken home and reread and consequently reinforce the messages gained during the experience. They can also serve as a souvenir and to help publicise the Garden and its activities.

NGBB has already produced a wide range of publications including a regular magazine (available by subscription), a children's gardening booklet and

teacher's pack, Garden map leaflets, plant conservation posters and a booklet introducing the importance of Turkish biodiversity. A number of these have been translated into English. At present the publications do not have a coherent style (see section titled 'Additional points').



NGBB literature

Media – Signs

Orientation is essential to enable the casual visitor to get the most from a visit to the Garden. This is best achieved through a map panel and welcome panel near the



Map & Welcome panel, UK example

entrance to the Garden, a map leaflet (see above) and direction signs pointing out the principal areas and features.



Direction signs, UK example

The NGBB is laid out as a series of cells bounded by the roads of a motorway intersection. These cells will become increasingly linked together by tunnels and footbridges and good maps and signs will be essential to help visitors navigate the Garden.

Media – Websites

The web is increasingly used by people as a source of information. It has the advantage of being cheap and easy to update. Websites can also have a degree of interactivity so can satisfy some of the requirements of interpretation. The style of writing generally adopted for the web is similar to that used in interpretation. Text is kept short and should have a clear message or purpose.

ENGLISH

- || Aims
- || Plants in the garden
- || Situation and History
- || Development of the garden
- || Conservation
- || Education
- || Events
- || Funding
- || Contact

Anasayfa
NGBB Hakkında
Bilimsel Faaliyetler
Eğitim
Oyunlar
Bahçenin Geofitleri
Kütüphane
İletişim
Gönüllüler
Staj Olanakları
Bağbahçe
Haberler
NGBB Albüm
Bağlantılar
Site Haritası

bağbahçe

Nezahat Gökyiğit Botanic Garden
internet sayfalarına hoşgeldiniz

Nezahat Gökyiğit Botanic Garden (NGBB) 50 hektar alan üzerinde kuruludur ve 2002 yılında botanik bahçesi olarak ziyarete açılmıştır. İstanbul'a %17 oranında yeşil alan sağlamaktadır.

Türkiye'nin doğal ve endemik bitkilerinin yanı sıra seçilmiş ülkelere ait ağaç, çalı ve otu bitkileri içeren bu botanik bahçesi İstanbullular için yeni bir dinlenme noktası olduğu kadar, bitkiler konusunda eğitimi ve yerinde öğretimi amaçlamaktadır.

Tüm bitkilere Türkçe isimleri ve Latince bilimsel adlarını taşıyan etiketler yerleştirilmiştir. Burayı değişik zamanlarda ziyaret ettiğinizde nadide çiçekler, ağaçlar görebilir, etrafta eşinen tavukları ve havuzda yüzen ördekleri izleyerek dinlenebilirsiniz.

Bitkiler Her Koşulda Çevreyi Korumak için Çalışıyor.
Peki ya Biz?

Nezahat Gökyiğit Botanic Gardeni geliştirme aşamasındadır. Halen 2000 tür kadar bitki çeşidine sahip botanik bahçemize sürekli yeni bitkiler eklenmekte, ülkemizin yabancı ya da endemik bitkileri üretilmekte ve bitki savasının çeşitlenmesi için yoğun emek

NGBB Website

The NGBB has had a website since 2004 and content is under continual development. The website has many of the elements typically expected of websites. The following areas of work are covered:

- Botanic gardens news
- Photo albums
- Education programme details and booking information
- Bulbous plant collection
- List of library holdings
- Children's games
- Volunteer information

A summary text is also available in English.

There is potential to develop the website further and consideration should be given to development of an events calendar if regular public events start to take place. Information on specific conservation projects, collections or research should be added as appropriate to ensure new content is available for repeat visitors. Websites can also be used to provide post-visit information for the general visitor and for groups participating in organised programmes.

Key concepts

In order to increase your chances of success some basic rules need to be applied to all of the various types of interpretation:

- **Make it enjoyable.** People pay more attention if they are having fun. In the case of text think about how journalists use 'hooks' to hang a story on. For example, culture and traditions provide good hooks.
- **Keep it simple.** Your audience most likely has no background in botany and is in the Garden for leisure. You need to avoid technical terms and use every day language. By keeping things simple you make it easy for people to understand the message.
- **Keep it short.** Research has proven that people will rarely read more than 50 words in a block of text. A limit of 200 words of text is a good guide (do not be completely restricted by word limits as rules are not always helpful). The adage 'a picture is worth a thousand words' certainly applies to panel boards. For live interpretation short events are best. Thirty minutes will be too long for many people.
- **Work in themes.** A Theme is a whole sentence that focuses on one particular message that you wish to communicate. A theme will also help you structure and organise your work and provide a thread for your audience to follow.
- **Make visitors think.** Interpretation is not just about feeding the visitor factual information. Interpretation should give visitors ideas to think about.
- **Use the active voice.** Use active verbs and write or speak in a lively and personal style.
- **Personalise.** Relate your message to the personal experience of the visitor by using analogies and making links to everyday life. This will make your interpretation relevant.

Additional points

In addition to the basic rules of interpretation there are some important things to consider:

- **Know your audience.** Interpretation is aimed at a general audience, but can be developed to suit more specific audiences.
- **Do not interpret everything.** Too much interpretation will overwhelm the visitor and produce visual clutter that damages a garden.
- **Create a coherent look.** Try to give all pieces of interpretation a unified look. This will create brand recognition (i.e. of NGBB) so that visitors will be able to make the connections between the various forms of interpretation. Graphic style, typefaces (fonts), colours, logos and straplines (short catchphrase, potentially the mission if it is short) all have a part to play.
- **Show what can't be seen.** Use attractive images of plants in their natural habitats, flowering and fruiting stages that can't be seen year round in the Garden or even people working with the plants you are interpreting e.g. preparing traditional medicine. A good general source of high quality images is istockphoto (www.istockphoto.com). For non-commercial use images typically cost between US\$1 (small) to US\$20 (large).
- **Useability.** The audience will span a range of ages and abilities. Therefore, especially with outdoor interpretation, carefully consider the following:
 - Height, aspect and angle of outdoor panels
 - Use a clear and easily read typeface
 - Use font sizes to create a text hierarchy and avoid going below 24pt size
 - Use good contrast between background colours and text

- Be aware of glare (use matt laminating pouches, avoid completely white backgrounds)

Monitoring and evaluation

Monitoring and evaluation of all the interpretation ideas presented in this plan is beneficial. Evaluation of all new work is best planned in three stages.

Proposal assessment

This uses small focus groups of staff, teachers and environmental educators providing opinions on the proposed interpretative topics and themes and various types of media available.

Prototype evaluation

Wherever possible all idea should be tried and evaluated first in prototype before proceeding to full development stage. Panels can be produced as basic, laminated versions first before the final production stage. This will enable remedial action, such as editing, repositioning or redesign, to be taken.

Final evaluation

Visitor's feedback and peer review will enable us to judge the success of the interpretation. In particular we will be evaluating the success of interpretation in meeting the project objectives in terms of increasing visitor's knowledge and understanding and influencing behaviour and emotions.

NGBB should carry out most of the evaluation work. However, opportunities should be sought to share its experience with others. Students on placement to NGBB could be encouraged to carry out evaluation of exhibits and live interpretation programmes under supervision of their college lecturers.

A simple visitor questionnaire has already been completed. This should be repeated to get a fuller picture of what visitors want. Interpretation should be included among the potential facilities of the Garden in any future questionnaire.

Staffing

The Interpretation Master Plan has been prepared by a joint team from NGBB and the Royal Botanic Garden Edinburgh (RBGE) under the auspices of the Darwin Initiative.



Implementation of the plan is the responsibility of NGBB. The Garden already has an Education Officer who is fully occupied with running the education programme. The Herbarium Officer has been responsible for the production of all in-house interpretation to date and will take on responsibility for the implementation of the Interpretation Master Plan.

Training in the use of graphic design software is necessary and has already begun. In addition, reading some of the key interpretation literature (such as Chapter 8 of the Darwin Technical Manual for Botanic Gardens) will provide invaluable background information. Opportunities should also be provided to see what interpretation other gardens and visitor attractions are providing.

Interpretation is often best developed by a team of two or more individuals. The technical (software use), graphic (visual design sense) and

communication (writing/speaking) skills will rarely be found in one individual. A good combination is a technical person working with a communicator. At NGBB this could be the Education Officer and the Herbarium Officer working as a team.

Collaboration

Ideally, NGBB should offer a shop-window for Biodiversity in Turkey and as such it should attract the support of other organisations and agencies that have broadly similar purpose and objectives.

Special events – other organisations and agencies could be invited to bring displays, demonstrations or activities along to the Garden on special days such as International Biodiversity Day. These organisations will benefit from an attractive space for exhibiting their displays and an interested audience to promote their activities to. NGBB will benefit from the additional visitors and publicity that these special events are likely to attract. NGBB should aim to get media coverage for special events on television, radio and in the press.

Exhibitions – If a dedicated exhibition space can be created then exhibitions created by other appropriate government or non-government organisations could be hosted at the Garden. These should be relevant to the overall purpose of the NGBB but consideration should be given to art and craft exhibitions (for example, paintings or photographs of plants or landscapes by local artists, or displays of art made with natural materials) as well as more didactic (instructional and entertaining) exhibits. Both art and science have an important place in interpreting biodiversity.

Recommendations

1. A suite of interpretation panels is created in-house and installed on the existing information panels (some repositioning will be required).
2. Panels are colour coded to create topic-based sets. For example, collections, habitats, education, horticulture and areas under construction.
3. Existing wooden plant information signs should be rationalised where possible and consideration given to using smaller signs for this type of information.
4. A regular programme of public events is established, with posters and the website used to publicise the programme.
5. Regular monitoring of the number of public visiting the Garden.
6. Periodic surveys of visitors to establish what they think of the Garden and what they would like to see in the future.
7. Establish a 'Garden Highlights Board' at the main visitor entrance or other suitable location. This could be a blackboard with space for images.
8. Consider printing interpretation on banner material to give greater visual impact.

Appendix 1: Specification of equipment to produce in-house interpretation

The following are currently in use at RBGE but more recent models are available. The Internet provides excellent websites that review products and are also good sources for the best prices available (www.trustedreviews.com).

Printer:

Epson Stylus Photo R1800

Cost: approx. 1000YTL

Inks:

Epson Ultrachrome Hi-Gloss pigment inks (8 altogether)

Cost: approx. US\$ 14 each

Paper:

Epson Premium Glossy Photo paper

Cost: varies – probably around 50YTL per pack of 100 A4 sheets, and the same for 25 at A3+ size

Lamination:

GBC Heatseal laminator

Cost: approx. 250YTL

N.B. when printing panels for lamination, unclick the 'Gloss optimiser' option as this gives a special coating of gloss to protect pictures and posters; the laminating pouch will do that instead. Use matt lamination pouches as standard.

Cost: approx. 58YTL


Ultra high bonding tape:

To attach laminated interpretation to surfaces such as wood or plastic spongy ultra high bonding tape is good as it will cope with uneven surfaces.

Cost: approx. 25YTL


Suggested supplier: <http://www.psadhesives.com/>

Appendix 2: Sample interpretation panel – planning, content and design



www.ngbb.gen.tr

Bulbous Plant Collection

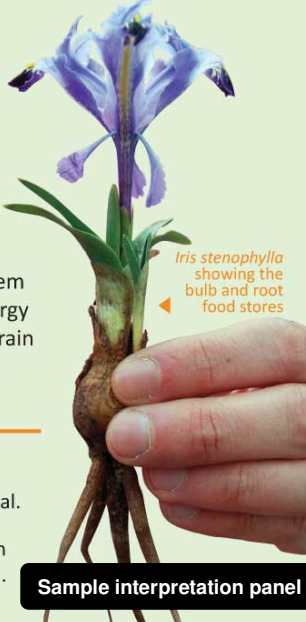


▲ Bulbs selected from the collection for public display

Surviving drought

If you are too hot you may decide to move into the shade. For plants rooted in one position, the challenge of summer and winter is lack of available water. Some plants use 'bulbs' to survive such extreme conditions.

The bulb is a special underground root, stem or leaf base that is swollen and stores energy (food). Bulbs begin growth when autumn rain arrives, generally flower in spring and are dormant during summer.



Iris stenophylla showing the bulb and root food stores

Sample interpretation panel

Planning process

Objective

To increase understanding of Turkey's important flora of bulbous plants.

Audience

The general public.

Theme

Swollen underground storage organs enable bulbous plants to survive extreme summer and winter drought.

Sub theme

Turkey supports exceptional diversity of bulbous plants.

Content

1. Title: Bulbous plant collection

2. Photograph 1: View across raised bed showing a variety of bulbs.

3. Photograph 1 caption: Bulbs selected from the collection for public display.

4. Main theme text: Surviving drought

If you are too hot you may decide to move into the shade. For plants rooted in one position, the challenge of summer and winter is lack of available water. Some plants use 'bulbs' to survive such extreme conditions. (39 words)

The bulb is a special underground root, stem or leaf base that is swollen and stores energy (food). Bulbs begin growth when autumn rain arrives, generally flower in spring and are dormant during summer. (34 words)

5. Sub theme text: Bulb diversity

Turkey has a rich bulb flora, including species found nowhere else. Many are desirable garden plants and collecting from the wild poses a threat to their survival. (27 words)

Our bulb collection includes over 250 species. It is used for research, conservation and education and is the largest collection of Turkish bulbous plants in cultivation. (26 words)

6. Photograph 2: *Iris stenophylla* showing bulb and hand holding it.

7. Photograph 2 caption: *Iris stenophylla* showing the bulb and root food stores.

8. Website (to appear on all material): www.ngbb.gen.tr

9. Logos

N.B. Explore the possibility of using a strapline on all materials – possibly mission statement?

Appendix 3 Suggested interpretation panels

Proposed interpretative panels in no order of priority

1. Welcome information with map
2. Garden rules panels
3. Rock garden and alpine plants
4. Bulb display and collection*
5. Dry garden (salt tolerant plants)
6. Hedge demonstration area
7. Native oak collection (possibly also a self-guided trail)
8. Medicinal plants
9. Children's garden
10. Education programme
11. Cultivated and domestic fruit trees
12. Bees
13. Traditional Istanbul garden
14. Plants of the Istanbul area

