

# BOTANIC GARDEN CREATION AND MANAGEMENT: THE FEASIBILITY AND DESIGN OF NEW BRITISH COLLECTIONS [On-line Edition]

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Abstract

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## 6 Eden Project Case Study

Chapter 3 contains a number of botanic garden case studies that document the creation and evolution of these organisations into the forms that they have today. However, with the exception of the National Botanic Garden of Wales, all the larger collections studied were founded some time ago in very different political and financial climates. It is likely that establishing a viable botanical collection today requires a different approach than doing the same thing a century ago. To test this, and obtain a better understanding of how the elements discussed in the previous two chapters can be successfully brought together, the following case study of the Eden Project in Cornwall was made.

### 6.1 Methodology

The following description of the origin and present management of the Eden Project has been compiled from a combination of literature and interviews with staff. As with the other botanical collection case studies (Chapter 3 page 77) the interviews were conducted using an 'unstructured interview' technique, as described by Robson (2002), during several visits between 2002 and 2004, including two week-long periods in September and October of 2004.

### 6.2 Description

In 1994, Tim Smit and others conceived an idea to create a garden consisting of a series of glasshouses that would celebrate the plants from different climates of the world with a section dedicated to cultivated plants (Smit 2001). This idea caught the imagination of others and evolved into the Eden Project, a living theatre of plants, a place where the stories of plants and people can be told.

In the beginning, the Eden Project had no staff, no collection and no property on which to locate it. This situation presented the Eden Project founders with the opportunity to create a collection in a garden that is entirely focused on achieving its aims. By 1999, a site had been found near St. Austell, in Cornwall, and work had started on making the idea a reality.

At present the Eden Project consists of two sites; the larger of which is a 20-hectare (49-acres) china clay pit that now houses the visitor attraction consisting of three biomes (Humid Tropics, Warm Temperate, and Temperate) with plans for construction of a fourth (Desert Biome), an education resource centre (under construction at the time of writing) and various visitor facilities such as cafes restaurants, shop and parking. The second site is much smaller (1-hectare (2.5-acres)) and is the site of the garden's nursery and quarantine facilities. The biomes were chosen to allow the representation of the world's major climates and thus allow the stories of plants from all parts of the world to be told.

Eden differs from many other botanical collections in that, even though it exists to tell plant stories, the visitors take priority; the plants themselves are not sacred (Minter 2003 pers. comm., Keay 2003 pers. comm.). This concentration on providing a visitor experience is for two reasons. Firstly, the aim of the project is to inform visitors and this is done through the visitors' experiences. Secondly, the primary method of income for the project is through visitors, it is therefore important to provide an experience that people wish to have, and will hopefully return to experience again.

The Eden Project was set up using a high cost, quick build model. The initial phase of building, which took the Eden Project from a concept through to an attraction open to the public, cost approximately £86million, which was spent as follows-

£10m	–	Purchase of the site
£8m	–	Reshaping the ground to make it safe, useful and dry
£25m	–	Construction of the two biomes
£3m	–	Plants
£1.5m	–	Manufacturing 50,000m <sup>3</sup> of soil needed
£1m	–	Nursery facility
£10m	–	Non-visitor buildings
£7m	–	Services
£2.5m	–	Salaries of staff up until opening
£2m	–	Exhibits
£9m	–	Design, engineering and other consultancy fees
£7m	–	Foundation Building

Adapted from Eden Project Website (2004b)

The funding for this initial stage was raised through a 50% Millennium Lottery Commission grant, 25% bank loan and 25% from other sources (Kendle 2004 pers. comm.).

### 6.3 How does it work?

“...if this place [Eden] becomes no more than an upmarket theme park it will all have been the most gigantic waste of money. We intend to create something that not only encourages us to understand and to celebrate the world we live in, but also inspires us to action.” (Smit 2002) “I am aware that if you want to effect real change, and we do, that you must not own it. You have got to make sure that it is owned by more than one person.” (Tim Smit in Vidal 2004). These two statements go some way to describing Tim Smit’s vision for Eden and the way he achieved it. Traditionally the structures of large gardens are the result of the ideas of one person, or a succession of people. However, Smit created Eden by assembling talented artists and scientists, instilling them with a common goal and then allowing them to shape the structure of the garden and organisation, while he steered the overall vision to ensure that the spirit of the original goal was kept (Readman 2002 pers. comm.). Having a goal that the staff have to find their own path towards, rather than a fixed plan with the route prescribed by someone else, gives the staff a greater involvement in questioning whether the organisation is steering the right course. This self-questioning results in an organisation that appears to be more flexible to change and quicker to adapt, a valuable attribute for any organisation that does not have a regular and secure income.

#### 6.3.1 Interpretation

Eden utilises a variety of methods to convey its messages, amongst which are the usual signs and guides found in many botanic gardens but in addition to this themed exhibits and art in the forms of performers, automata and sculpture are also used.

##### 6.3.1.1 Exhibits

The displays of plants at Eden fall in two broad categories. They are either themed on a particular location or on the uses of a particular plant. For example, the South African section of the Warm Temperate Biome (WTB) contains representations of the floras of the Fynbos, Little Karoo and Namaqualand regions while the Cocoa section of the Humid Tropics Biome (HTB) consists of only *Theobroma cacao*. There are places in the exhibit, such as the cork display in the WTB and the Malaysian garden in the HTB where these two types of display combine to show how the cultivation of plants becomes part of the environment.

All the exhibits are set-dressed with appropriate props to help with interpretation, deepen the immersion of the visitor, and provide objects to which they can relate. For example, the section in the HTB that deals with rubber consists of a plantation of rubber trees (*Hevea brasiliensis*), which in themselves are fairly uninspiring plants but by using rubber tyres to edge the beds and displaying a variety of rubber based products the visitor is given a way of understanding how these plants are related to their lives (see Photograph 6.1). In the WTB a gateway to a Spanish villa has been recreated complete with bell tower. Unlike the rubber tyres this does not have a direct connection with the plants around it but the image of *Bougainvillea* flowering against a whitewashed wall is a powerful way of transporting the visitors' mind to the Mediterranean.

There is a conscious effort not to make the displays didactic. Eden does not take a specific stance on contentious issues but rather aims to inform and engage its visitors in debate. Humour forms an important part of all the displays and is a useful tool for encouraging visitors to engage with the exhibits (Craddock 2004 pers. comm.).



Photograph 6.1 – Rubber display at the Eden Project  
(Source: J. Furse-Roberts)

### 6.3.1.2 Signage

David Craddock (2004 pers. comm.), Eden's exhibit team manager, highlights a division between those people at Eden who would prefer Eden to have very little signage in the garden so the visitor has the experience of having to hunt to find entrances to biomes, cafes etc., and another group, which contains amongst others the operations team (i.e. those responsible for getting visitors in and out of the pit quickly and efficiently as well as providing them with the services they require to enjoy themselves whilst at Eden), who feel that signage plays a valid role and is needed. If 5% of visitors have to ask where the entrance to a biome is the stewards would have to answer, on a busy day, the same question 400 times. This is a burden on stewards and guides who could be using that contact time with a visitor to deliver the organisations messages rather than orientating them. Also, Maslow's hierarchy of needs (see Figure 5.1 page 205) suggests that if the visitor has to ask where basic services are, they are not in a frame of mind that is conducive to learning. When Eden first opened there was a desire to limit the amount of plant labels on display because it was felt that this detracted from the plants (Thoday & McMillan Browse 1999) but feedback from the visitors indicated that there was a desire for more labelling (Readman 2003 pers. comm.)

### 6.3.1.3 Art & Sculpture

The Eden Project has cultivated strong links between science and art and uses art, sculpture and performance within the garden to interpret the stories of the plants on display. For example, on arrival at the visitor centre, prior to entering the garden, the visitors encounter a large automaton called 'Plant Takeaway'. Designed and made by Paul Spooner and Will Jackson, this life-size machine shows the visitors what happens to the inhabitants of a house when plants and the products are taken away. The captivating sequence, which leaves the inhabitants naked and dead, summarises the principle message of Eden that all life depends on plants in a way that is appealing and understandable to all the visitors regardless of their age or native language. Once in the garden, the visitor will then encounter numerous pieces of art in the displays such as the cork and driftwood pigs by Heather Jansch. Located among the cork trees in the WTB they add interest to the display but also encourage visitors to find out why they are there. If they read the interpretive text or speak with one of the guides they will discover the story of how the pigs are associated with that particular habitat, which they maintain through their foraging, and how preservation of this habitat is connected with the corks in their wine bottles.

### 6.3.1.4 Guides

The Eden Project tries to avoid didactic displays, instead valuing the Socratic personal experience that occurs when stories are told and discussed. To achieve this Eden employs approximately 30 guides who undergo extensive training to ensure that they know the information and key stories associated with all areas of the site. In addition to this they are trained in communicating with the public. A process of assessment, both during the training stage and then once they are working with the public, ensures that a high standard is maintained. Once they have mastered the basic knowledge required, the guides are encouraged to research topics that interest them and include these, along with relevant topics from the news, during their interactions with the public (Patterson 2004 pers. comm.).

## 6.3.2 Education

Education occurs all over the Eden site in the form of edutainment, the delivery of which involves many different sections of the Eden staff. However, Eden also offers a more formal education service, which is delivered by the education unit. This also offers support and professional development for teachers and conducts research into teaching and learning methodologies. Currently Eden only caters for primary and secondary schools but ways of extending the support offered to Further Education (FE) or Higher Education (HE) groups wishing to visit Eden are being investigated (Patterson 2004 pers. comm.). Presently the needs of these groups are accommodated through various members of

non-educational staff. This is unsatisfactory as it imposes on the work of these staff and, as they are not necessarily trained in communication, does not offer the best quality service.

The Eden Project receives between 18,000–27,000 children per year (the variation in these figures are due to changes in the availability of space in which to house them. At the time of writing the Educational Resource Centre, which will eventually house the education department, is still under construction). The Eden Education Officers are responsible for delivering Eden's educational messages to school visitors. This is done in four main ways, through education officer (EO) led workshops, teacher-led visits, special events, and programmes run outside of Eden (Kendall 2004 pers. comm.).

#### **6.3.2.1 Education Officer Led Workshops**

The workshops usually last 2-hours during which time the EO guides the students through the programme. Eden does not model its education programmes on van Matre's Earth Education (EE) model (see section 5.1.2 'Education Theory') because there is not the access to certain resources needed, such as the ability to touch and feel to the extent required by EE (Kendall 2004 pers. comm.). However, many of these ideas and approaches are incorporated into the programmes, such as the use of hookers, organisers and immersers, along with their own findings. All workshops are theme based, that is to say that there is a story behind the workshop that is used to create interest from the students. The story sets a challenge for the students to complete during their visit. For example, students attending the 'Canopy' workshop are given the premise that for the day they are going to be scientists working in the rainforest, gathering data about the plants to use to help create a new plant or animal. When possible, the story begins before the students arrive at Eden. For example, students who have been booked in for the 'Fleur' workshop receive a letter sent by Fleur, an imaginary gardener, explaining that she has lost her senses and requesting that the students come to Eden and help her find them. This sets the scene for the workshop that encourages students to use their own senses whilst at Eden (Kendall 2004 pers. comm.).

#### **6.3.2.2 Teacher-led Visits**

Schools that do not wish to participate in one of the workshops can set their own agendas during teacher-led visits. These provide the school with the advantages of having a space dedicated for their use at Eden to meet and store bags etc. With a teacher-led visit the school party is met by an EO and led to the education building where they are given an introduction to Eden and the layout of the site is explained. The students are told Eden's Code of Conduct and the timetable for their trip. At this point the EO hands over to the teachers who then run whatever activities they have planned. Depending on the object of this visit this may be art work or it may be using one of the trail leaflets that Eden has, although this is not felt by the education team staff to be a satisfactory technique as it can lead to a 'tick and run' phenomenon (Ellison 2004 pers. comm.). Eden would prefer to have groups in for structured workshops. At present the ratio of teacher-led visits to workshops is approximately 3:2 (Kendall 2004 pers. comm.).

#### **6.3.2.3 Special Events & Programmes Run Outside of Eden**

Eden also reaches outside of the garden when trying to find ways of delivering its educational message. This can take many forms and often involves partnerships with other organisations. The outreach programme is still in a developmental stage but will provide Eden with access to resources that would give them the opportunity to conduct programmes that are more closely related to Earth Education.

#### **6.3.3 Partnerships**

Eden focuses heavily on partnerships and 'The Foundation', one of the five directorships, has the coordination of partnerships as its core aim. The creation of partnerships fits in well with Eden's remit to aid regional development. As one of the larger purchasers in the region they can work with local



businesses to offer them a safer environment in which to trial new products and techniques. Tony Kendle, the director of the Foundation, gives the following example “...we want to be science active; but we do not equate that to having to build labs at Eden...the science infrastructure is shrinking and is in funding crisis. Rather than develop our own facilities and begin competing with everyone else for declining research grants, we would rather use whatever funds we can raise to work through and support existing universities and research groups” (Kendle 2003). These partnerships can be found in all aspects of Eden however the most obvious area is conservation and research.

#### 6.3.4 Conservation & Research

As Robert Lowe (2004), in his article “*Eden Project: The relationship between people and plants*”, highlights that “there are no white coats or laboratories at Eden”. Instead, Eden forms partnerships to share the knowledge of its staff and use its reputation to help fund projects. Two examples of Eden’s conservation and research partnerships are illustrated by the Darwin Initiative projects Eden has been involved with (DEFRA 2004). Eden is the lead partner for the Propagation, Nursery and Establishment of Protocol for Seychelles Endemic Plants Project (Project Number 10-006). For this they have established partnerships between Government departments and local NGOs in order to conserve and re-establish the endemic plant species of the Seychelles. From this species recovery work, Eden, working with the University of Reading, has created a cultivar of the endemic *Impatiens gordonii*, which is now on sale as *Impatiens* ‘Ray of Hope’. The sale of this plant in Britain raises money for, and awareness of, the conservation work (Griffiths 2004). This shows how Eden is helping to find real world solutions to conservation problems. In addition to these Eden is also involved with more traditional botanic garden research. For example Eden worked with the University of Reading, University of Rabat and the University of Cambridge Botanic Garden to compose a list of a Moroccan vascular plants, which will provide a valuable tool for creating conservation programmes and base line data for assessment of changes to the flora.

#### 6.3.5 Marketing

The failure of the National Botanic Garden of Wales to reach its required number of annual visitors has been attributed to poor marketing (Pugh 2003; Goodhardt 2003). It might therefore be assumed that an organisation such as Eden, which has attained higher than expected visitor figures, also has a large advertising budget.

However, this is not the case, Eden’s marketing budget, and therefore the cost per visitor of marketing, is far lower than that of other similar organisations (Steel, E. 2004 pers. comm.). Elizabeth Steel, of Eden’s marketing department, believes that the reason that Eden can maintain a low marketing budget is the amount of free press the project has received from the beginning. This she attributes to Tim Smit and the relationship he created with the media, by infusing them with an interest in the project and a desire to find out how it was progressing ensured that Eden would regularly receive press coverage, which in turn provokes interest from the public.

At the time of writing the Eden marketing team had three main objectives. Firstly, to increase repeat visits. Secondly, to increase the number of visits during the out of season periods. At present Eden has visitor figures similar to other visitor attractions with the lowest numbers of visitors being in November and January. The third aim is to even out the age and social demographic of the visitors.

The first two of these objectives, those of increasing repeat and out of season visits, are being tackled through a series of seasonal programmes-

<u>Season Name</u>	<u>Time of Year</u>
Bulb Mania	- Spring
Flower Power	- Summer
Canopy Season	- Autumn
Time of Gifts	- Winter

These three-month seasons set the themes for exhibits, activities, workshops, and tours etc., which provide visitors with a reason for visiting more often.

To supplement this, at the end of last season an advertisement campaign entitle 'You Can Come Out Now' was instigated in local newspapers in an attempt to extend the summer season by encouraging people that live locally, who tend to 'go into hiding' during the busy summer period, to visit out of season.

The third objective, to alter the visitor demographic, is tackled through a number of initiatives. For example, to increase the number of visitors in the 15-30 age bracket the Eden Sessions were developed. These are a series of summer concerts held outside in the amphitheatre with music provided by internationally recognised performers of music popular with this age group. A ticket to the sessions includes free entry to Eden on the day of the concert and on the following day. The concept is that the concert will draw in the target audience and the free tickets will persuade them to spend time at Eden other than during the concert. Once they have experienced Eden it is hoped that any negative preconceptions are altered and that they will then return at a later date to make a non-sessions paying visit.

Eden is located in a region that has an average GDP below 75% of the national average (ESF Website 2004). This means that for a lot of people living locally the entrance fee to visit Eden may be prohibitive. As part of this third objective, a need to increase the numbers of C2, D and E type visitors was recognised. To help achieve with this the 'Eden Passport' scheme was implemented. This gives people buying a ticket the option to pay an additional £5 pounds to convert the day-ticket into a passport that then allows them free entry for a year after purchase (Eden Project Website 2004a).

As has been seen with the 'You Can Come Out Now' campaign, the local press is used to inform visitors and local inhabitants about what is happening and, as with the 'Rain, Rain, Go Away' campaign, when not to come, thus avoiding peak times. Although this last campaign was not very successful because the idea that a visitor attraction was spending money on telling people when not to come was picked up by the national papers, this additional coverage ended up increasing the overall visitors (Steel, E. 2004 pers. comm.). Specialist groups are kept informed in different ways, for instance direct mailing is used with hotels while exhibitions at local and national tourism fairs keep tour operators informed. In addition to advertising in the local press, railway and tube posters are used as well as the sides of a local haulage firm's vehicles.

Eden has introduced schemes to allow tickets to be purchased prior to arrival onsite. For instance, Eden has a mobile display van that can be parked at a motorway service station used by visitors entering the southwest. The use of prepaid tickets aids Eden not only by committing people to visiting Eden during their stay in Cornwall but it also speeds up the process of getting them into the garden. Tickets are also available from 300 hotels that receive a commission on each ticket they sell. This gives them a vested interest in promoting the project.

Gift aid, the donation of the rebate on income tax paid during the visit, requires the details of the visitors signing up for it to be kept (see section 0 'Gift Aid' page 147). On this form visitors were asked whether they would like to be kept informed about developments at the Eden Project. This information will eventually be used to create a database for mail shots. An e-mail database would be desirable because of the reduced costs. However, in this case e-mail addresses were not requested on the gift aid forms.



#### 6.4 Is it a success?

The Eden Project was chosen for examination in this chapter because it is generally considered to be an example of a successful contemporary botanical collection. This could be justified by the fact that of the two major projects attempted in the past five years the Eden Project has not announced its imminent closure nor had to make appeals for public funding, but apart from this how successful has the project been?

There are many ways that the success of a venture, such as the Eden Project, can be judged and in many botanic gardens the only statistic gathered for assessment of the garden's performance is visitor figures. Prior to opening, the forecasts for visitors to the Eden Project estimated a yearly attendance of approximately 750,000 (The Eden Project 2004). However, in the first year approximately 2million attended, this fell to 1.7million in the second year and 1.4million during the third (Minter 2003 pers. comm.). This figure is expected to level off at an annual baseline figure of about 1.2million *per annum* (Jasper 2004 pers. comm.). Whilst this is still almost double what was forecast, the loss of 800,000 visitors in comparison with the first year might be seen as indicative of a problem in maintaining visitor interest. However, Andy Jasper (2004 pers. comm.) through his experience of Eden and other visitor attractions believes that there are two models that these organisations follow when opened, one receives large visitor numbers in the first year after which they fall and level off. Organisations following the second model receive lower initial visitor numbers during the first year but these then rise and eventually level off. Eden has followed the first model and indeed prefers to have visitor numbers at about 1.2million because from a logistical point of view it is easier to handle and with higher numbers the quality of the visitor experience is threatened.

The higher than expected visitor figures during the first year stretched the staff and fabric of the organisation, which had been designed to receive only 750,000 visitors. As a result during the first winter Eden was faced with having to carry out a lot of unscheduled work in order to expand the visitor services to cope with the higher numbers. By 2004 the staffing levels were approximately 550, of which 400 fulltime equivalent positions are core non-seasonal. This is higher than was initially planned for, which in turn results in a higher payroll to sustain.

If Eden were a commercial company the number of visitors represents the amount of income and is therefore extremely important, as the purpose of the company is to make money. As Eden must fund itself through its visitors it is important that enough revenue is generated. However, as a not-for-profit company the Eden Project has other aims, which are equally important for it to achieve in order to feel that it has been successful. These aims fall into two broad categories; the communication of a message and a positive influence on regional development.

Eden is unusual among botanic gardens in employing a full-time member of staff with the sole purpose of gathering and assessing Eden's impact on its visitors and its surroundings. Eden's self-assessment is often conducted in partnership with external organisations, not only because partnerships result in the sharing of experiences and generates opportunities to develop new techniques but also because this inclusion of an organisation that is more removed from the project is seen as desirable in ensuring that the analysis of results is unbiased.

Eden's attempts to quantify the influence it has had on the development of the region has already been discussed in the 'Financial Impact' section (section 4.2.1.1 page 153). The techniques used enabled Eden to estimate that between April 2002 and April 2003 Eden had been responsible for encouraging an additional £145,571,638 to be spent in the area (The Eden Project 2003) and that Eden has had a positive effect on businesses helping to increase the number of customers, turnover and improve the image. Businesses also reported employing more people (The Eden Project 2003), the creation

of Eden itself provided an extra 300 jobs for local people. *Quantquest* is a visitor profiling study that is ongoing at Eden. On a monthly basis, questionnaires are made available for visitors to complete. Approximately 4,000 a year are completed and the results used to assess the performance of various areas of the visitor experience, such as cleanliness, visitor information, crowding. In addition to this, data from the questionnaires help to produce a demographic profile of the Eden visitors. The results were very positive. For instance the project ratings, where visitors were asked to score various aspects of the project between 1 and 10 (1 being 'pretty bad', 5 'average' and 10 'just wonderful'), averaged 7.8 overall with no single aspect individually averaging below 6.8. However, analysis of the demographic data showed an absence of young adults attending (Jasper 2004). This resulted in the creation of the Eden Sessions that have been discussed earlier in this chapter.

Fundamentally, Eden is about making changes and in particular changes to the way its visitors think. Just as with the aim of positively affecting a change in the development of the region, Eden spends time trying to assess how well they are achieving this goal. Personal Meaning Mapping (PMM) is a technique, based on constructivist theory, where a subject is given a central topic around which they attach topics that they believe to be relevant. The resulting diagrams can be used to assess the subjects knowledge and understanding of a topic (Trowbridge & Wandersee 1997) and has been used to assess visitor understanding of museum exhibits (Falk, Moussouri & Coulson 1998). This technique was employed by Eden to assess what and how much 300 primary school children learnt while attending one of the schools workshops run by the Eden's education team. The results showed quantitative increases in the extent (46%), breadth (33%), depth (40%) and mastery (37%) of learning from participation in the workshop (Jasper & Bowker 2004).

This approach was then taken further with a technique developed at Eden. Students were asked to draw their impressions of a rainforest before and after visiting. After each stage the students were asked to explain their drawings and the resulting conversations recorded. Analysis of the results revealed a striking difference between the before and after pictures. After a visit the students produced much denser images with greater detail of leaf shapes. The European deciduous-shaped trees of the pre-visit pictures were replaced with palms and other tropical trees in the post-visit drawings (Jasper 2004 pers. comm.). One unexpected difference between the two drawings was that invariably the pre-visit drawings contained snakes, spiders and butterflies but these were absent from the post-visit drawings. The absence of readily visible animals in the humid tropics biome seems to have had as much influence on the students concepts of what a rainforest is as the presence of palms and bananas, the implications of this will need to be considered by staff when planning future exhibits or educational programmes.

In addition to this research Eden has also conducted studies to examine family visits using a minidisk to record the conversations that take place during their time at Eden. With visitors to the Eden Sessions there was an interest in understanding what type of person was attending and in particular their environmental position. To do this the 'New Environmental Paradigm Scale', a revision of the 'New Environmental Paradigm Scale' (Dunlap *et al.* 2000) was used.

## 6.5 What does the future hold?

The success described in the last section may give the impression that the future of the Eden Project is secured. However, this is not the case. Running the Eden Project costs approximately £17million *per annum*, which is spent roughly as follows-

£8million – payroll  
 £2-3million – maintenance/energy  
 £2-3million – loan repayments  
 £2-3million – repair and renew  
 (Kendle 2004 pers. comm.)

At present Eden is not generating enough income to accumulate a reserve, which means that if for some reason there is no income, for instance an outbreak of foot and mouth disease in the area prevents visitors from getting on site, the Eden Project would immediately start to accumulate debt.

Half of the initial funding for the project came from the Millennium Lottery Commission. In order to qualify for this an equivalent amount needed to be found to match it. Eden managed to raise 50% of the money needed and bolstered this with a bank loan for approximately £20million. As can be seen from the figures above, paying back this loan is costing between £2-3million p.a. and will take approximately 10years to payback in full. When this is done Eden will theoretically be in a position where it is generating a surplus of this amount each year. This would give Eden the opportunity to build up an operating surplus, if it has not already done so by then, and possibly even become a grant giving organisation rather than a grant receiver.

It appears that a large part of Eden's success has been due to its ability to question every aspect of what it is doing, and then act quickly if it is felt that something needs to be done differently, combined with its focus on working in partnerships, which has given Eden access to facilities and knowledge that would have cost time and money to accumulate by itself. This flexibility has a great deal to do with the management structure and style.

### 6.5.1 Management & Structure

For legal reasons Eden consists of two organisations; The Eden Trust, a charity, and The Eden Project, a company owned by the trust. The Trust has the charitable aims of delivering education and research, while the company has the remit to generate revenue, which it then gifts to the trust.

The Eden Project has a board of executive and non-executive directors. The non-executive directors purposefully remain detached from the day-to-day running of the project to try and ensure unbiased views. There are five executive directors, each with responsibility for different areas, and headed by the chief executive, Tim Smit.

Chief Executive	-	Tim Smit
Executive Directors	-	Finance
		Marketing
		Operations
		Development
		Foundation

In addition to these there is also a Phase IV team responsible for the capital projects, which are financially separate from the other bodies.

This structure has evolved, partly out of a legal need to keep the charity and revenue generation aspects of the organisation separate and partly from the history of Eden's rapid growth. The idea of the Eden Project was conceived by a small group of people who discussed it around Tim Smit's kitchen table. As the project grew, the number of staff also grew. When the staff was about 40 there was still no formal management structure and decisions were made in a similar manner to the kitchen table with everyone free to express their views. This worked because at that time all staff were based in one building. However, as the project developed and the visitor centre was about to open there was an increase in staff and dispersal over two sites.

With the larger number of staff a more formal structure of decision taking was needed. At present this is achieved through a number of different groups such as the Resource Allocation Group, which consists of the executive directors plus the financial controller and a representative of human resources, that deals with those issues for which the board is responsible i.e. financial and legal. The Content Group, which meets to discuss the direction of the project and the keep Tim Smit briefed on what is happening (Kendle 2004 pers. comm.). It is this group that decides the topics of upcoming themes and events. These then get passed to the Exhibit Forum, which is a group comprising of members from a variety of areas within the site who meet monthly to discuss how best to interpret the topic. The Exhibit Forum creates a brief that is given to the relevant teams internally, such as the Green Team (horticulture) or the Design and Build teams, or externally if the work is to be outsourced. The Exhibit Delivery Group, which meets fortnightly, manages the logistics of the exhibit design and installation, and monitors progress of these projects (Craddock 2004 pers. comm.).

With regard employment, as part of its regional development commitment Eden tries to employ people living locally where possible. When seeking large numbers of employees for the first wave of staffing, Eden, rather than advertising for specific jobs, recruited people who were interested in working at Eden from the local job centre. These were then put through a series of workshops and then subsequently 'cast' into various roles. This worked well and helped create a staff that not only worked at Eden but also understood and believed in the values it stands for. Following the unexpected numbers of visitors during the first year there was a need to rapidly increase the number of staff again. However, on this occasion time-restraints prevented this same process being carried out again, instead specialists in the various fields, mostly catering, were employed. This caused problems for Eden as these specialists brought in working-practice from their own industries, much of which did not necessarily match Eden's ethos, and which has taken time to change. The present management structure is not as fluid as in the early days but, as with other aspects of Eden, its effectiveness is always being questioned and alternative solutions being sought (Hill 2004 pers. comm.).

## 6.6 Discussion

Eden refers to itself as a botanical institute rather than a botanical garden. This appears to have been done to differentiate itself from recreational gardens without implying the other characteristics associated with the botanical garden stereotype. Despite sharing many of the core aims of gardens such as RBG Kew and RBG Edinburgh, as well as similar visitor figures, cost of running and standard of horticulture, Eden is fundamentally different in the approaches it uses to achieve its aims. Eden's philosophy, that nothing is sacred when it comes to delivering their message in a way that is enjoyable to the visitor, differs from the traditional view of a collection that exists primarily for 'scientific' purposes and secondly as a visitor attraction (and this perhaps mainly out of the necessity of generating revenue to remain operational). However, when combined with the willingness to work in partnerships, this

creates an organisation that, providing the impetus of the staff exists, is capable of changing quickly to adapt as the environment around it changes. This characteristic is not shared by more traditional botanic gardens. It is interesting to note that the National Botanic Garden of Wales, which followed a model more akin to a traditional botanic garden than to Eden, has had problems in accepting that, as a financially unsupported garden, the primary use of the collection must be to ensure that the organisation is sustainable.

With regard setting up a new botanic garden this case study illustrates some important points. For a viable botanical collection to be established today there is a requirement to be commercial. Part of this process is a constant assessment of whether aims are being met, and questioning whether what is being done is being done in the best possible way. Creating a large organisation is financially risky and an excess of visitors can cause problems just as a dearth of visitors can equally be problematic. Marketing is an important part of running a commercial organisation and need not use vast proportions of the budget if the press can be enthused with an interest in the project and this enthusiasm is then nurtured through good communication. To convey any message to visitors they must first be engaged in a form of dialogue. Stories and humour have proved to be successful methods and the policy of not taking a didactic approach of telling people what they should be doing, but rather providing them with information, appears to be respected by the visitors.

If a replica of Eden were to be built by another organisation its success would not be guaranteed. Organisations develop personalities as a result of the way they are run, the personalities of people who work there and the history of that organisation. At Eden this personality is a major contributing factor to the 'formula' for its creation. In addition to this, the public must buy into the idea. From its conception there was an interest in the project from the media and, as a result, the public in general. However, if it were to be announced that a clone of Eden were to be produced elsewhere in Britain it is possible that the media would initially be less receptive. Instead, a different approach but one that still catches the imagination, as Eden did, would be needed.