Abstract

This project is about how architecture might affect the relationship between two groups of people; two different groups with experience of conflict in the past.

The context for this study is the island of Cyprus which taken as the location for this proposal. The site is located in the Buffer Zone between the Turkish Cypriots and Greek Cypriots.

The chosen type of public space is the airport, because of its complexity of social activities. The airport will accommodate both sides, Greek and Turkish Cypriots in a bi-communal space mixed with international travelers visiting the island; this is in order to facilitate interaction in an environment, away from political and religious differences. The aim of using the airport is obvious for its users, but what this project is trying to achieve is to prepare a process of normal airport activities in order to make it easier for both sides to understand these common connections when they sit next to each other.

Based on the specific situation of the island, moving towards ‘connection’ has been considered as opposed to “separation” as a concept for an ‘architecture of reconciliation’ in this paper. In the process of designing the airport, creating spaces in which both sides can be together will be the focus.

In this study the airport building has been proposed as a neutral location between the Turks and Greeks. This method has been employed to achieve an architectural solution to solve the problem of integration process, but that doesn’t mean that the current social situation and cultural aspects of each group would not be considered.
Table of Contents

Abstract ................................................................................................................................. i
Acknowledgements ............................................................................................................. iii
1.0 Introduction .................................................................................................................. 1
2.0 A brief story of Cyprus ............................................................................................... 4
  2.1 An architectural sense of the city .............................................................................. 6
  2.2 The border of similarities ......................................................................................... 6
  2.3 Outlook of economy in the island ............................................................................. 9
    3.1.1 The New chapel of Reconciliation .................................................................. 17
    3.1.2 The place of peace ......................................................................................... 19
5.0 Methodology ................................................................................................................. 26
  5.1 Architecture of reconciliation .................................................................................. 26
6.0 Design Process .............................................................................................................. 27
  6.1 Project brief .............................................................................................................. 28
  6.2 Site analyses .......................................................................................................... 29
  6.3 The Site ................................................................................................................... 30
  6.4 Growth pattern of the Nicosia urban area ............................................................... 31
  6.5 Overview of weather condition in Nicosia ............................................................ 31
  6.6 Current operating airport in Cyprus ..................................................................... 33
    6.6.1 Ercan airport in the Turkish part of the island .............................................. 33
    6.6.2 Larnaca International Airport ...................................................................... 33
  6.7 Air traffic condition ............................................................................................... 34
7.0 Design work .................................................................................................................. 35
  7.1 Project development ............................................................................................... 46
    7.1.1 Public transport ............................................................................................. 48
    7.1.2 National roads to the airport .......................................................................... 50
    7.1.3 Car parking .................................................................................................. 51
  7.2 Intermediate planning ............................................................................................ 54
  7.3 Functional type of airport terminal ....................................................................... 56
  7.4 Air Craft loading system ....................................................................................... 64
  7.7 Materiality .............................................................................................................. 68
  7.8 Design environmental consideration ..................................................................... 71
8.0 Conclusion .................................................................................................................... 75
9.0 Bibliography ............................................................................................................... 79
Acknowledgements

The proposed project is to accommodate the two groups of Cypriots (Greek and Turkish Cypriots) in a bi-communal space along with international travellers visiting the island in an airport, in order to facilitate interaction between them, away from political and religious differences.

This thesis is dedicated to the Unitec New Zealand Department of Architecture.

This thesis would not have been realised without the help of my supervisors.
1.0 Introduction

This thesis will investigate and explore the ways in which the qualities of architecture can assist the groups by making connections. I am interested in discovering how architecture can help diminish the intensity and scale of conflict by creating a place where connections between conflicting parties can be best carried out. How can architecture help to achieve a greater comfort between conflicted parties? Can architecture foster empathy between two communities who have a history of conflict?

To achieve ways of overcoming some of these problems, different architectural tools have been employed. To avoid any possible bias, the building has been assumed as a neutral point, situated in the neutral part in the real world. Conceptually by employing this method in planning the building, both groups move to reach the neutral point from each side and create the shape of the building.

All the spaces in the building have been designed in a way that the passengers have the maximum connection.

However, the aim of this project is not to bring ‘peace’ to the groups but it could help the process of interaction between them in order to make both sides experience living together or in this case doing one type of living activity. The chosen type of social activity, travelling is interesting, particularly because the purpose of coming to the airport is mainly, ‘sharing one space for a period of time to get to a destination’. There will be an experience of being seated next to others for a few hours.

This process starts by studying precedents to achieve a basic knowledge of the types of architecture and their relation to the proposed building. In this process the references of the precedents with the new building will be assessed to evaluate its architecture qualities. This is followed by a brief description of the island of Cyprus, site analysis and finally finishes with an introduction to the methodology used and design development.

It is relevant to the subject of this paper to quote a few lines from the book “Violence and Differences”:

“…Peace among men, it is important to note, is not the object of desire, not by any stretch of the historical, political, or sociological imagination. Nothing unites a
community, with all the good fellowship and cooperation one can imagine, like the external threat of a common enemy. But the threat is originally internal; it is the violent threat of all against all. It is the annihilating threat of this internal difference, or differences, that we have rematerialized in the postwar, postmodern era; with the world itself at stake all differences would by definition be "internal" differences…war is a state of order, a classic state of lines and of columns, of maps and of strategies. It is a remedy to the violence of the furious, raging multitude…a society makes war to avoid at all costs a return to that state. Peace, then, is not the object of desire, but its by-product, the calm to which the deferred appropriation of the victim gives rise. It is a calm logically—that is, necessarily-attributed to the miraculous agency of the victim, thanks to whom for the first time something like a before (war) and after (peace), an outside (sacred) and inside (community), is marked, above all, as remarked, for its experience is necessarily mimetic and collective…”

1 Andrew J. McKenna, Violence and Differences, (USA, Publishing Data, 1992), 45.
The design of an International Airport in Cyprus

Research question:

How might architecture foster greater empathy between two communities?
2.0 A brief story of Cyprus

Cyprus is an island located in the eastern part of Mediterranean sea about 70 kilometres south of Turkey, and 350 kilometres from Greece. Writing a brief history of Cyprus is challenging, as there is a great deal of it. For 9000 years, this island has been a stepping stone between the East and West. Because of its particular location in the Mediterranean sea, the island is occupied by 35% Turkish and 65% Greek Cypriots. The Turkish part is mostly Muslim and the Greek part Orthodox Christian.²

Due to its strategic location in the eastern Mediterranean, Cyprus had suffered throughout its history from invaders, conquerors and colonial powers, such as the Romans (30 BC-330AD), the Byzantines (330-1191AD), Richard the Lionheart and the Knights Templar (1191-1192AD), the Lusignans (Frankish dynasty: 1192-1489AD), the Venetians (1489-1571AD), the Ottomans (1571-1878AD) and finally the British (1878 and remained on the island as colonial masters until 1960). They have all left their mark on the face of the island and especially on the form and the structure of the urban and rural settlements. Cyprus gained its independence from British rule in 1960. According to the Zurich-London Treaty, Cyprus became independent republic on 16 August 1960. On 15 July 1974, the ruling military junta of Greece staged a coup to overthrow the democratically elected Government of Cyprus. On 20 July 1974, Turkey, using the coup as an excuse, invaded Cyprus, allegedly to restore constitutional order. The Turkish invasion left the island and its capital divided into two. The centre of its capital city of Nicosia was suddenly divided and transformed to a dead-end. With nearly 35% of the island’s territory occupied, some 150,000 Greek Cypriots (about 1/3 of the population of the island at the time) had to abandon their homes and properties and flee, as refugees (internally displaced persons), to the south (government-controlled part of the island).³

The events of the 1970’s destroyed the bridges in Cyprus between the Greek and Turkish Cypriots. This event also changed the social landscape. The Green Line and Buffer Zone became the deep canyon without a way across.

² Christodoulos Demetriou, The Nicosia urban area (Cyprus, Department of Town Planning and Housing, 2001), 238.
³ Christodoulos Demetriou, The Nicosia urban area (Cyprus, Department of Town Planning and Housing, 2001), 237.
After the conflict of 1974 Nicosia was divided into two parts by the Green Line that runs across the city. Nicosia is the last walled city in Europe and since the event of 1970’s the capital has undergone enormous socio-economic and urban changes; as a result, it has lost access to the important resources on the other side.
The Buffer Zone, which cuts across the Nicosia Walled City in an east-west direction, covering an area of some 18-20 Ha. Within the Walled City, it is approximately 1.5km in length and passes through several old neighborhoods such as Paphos Gate (Porta Domenica), Arabahmed, Karamanzade, Ayios Andreas, Phaneromeni, Selimiye (Ayia Sophia), Arasta (Lokmaci Point), Omeriye, Chrysaliniotissa and Ayios Kassianos.

The Walled City, the oldest part of Nicosia, is one of the finest examples of medieval town planning, and dates back to the Venetian period (1489-1571). During this time, the major concern was the entity of the urban form rather than the internal structure: the city’s Renaissance walls with their 11 bastions and three gates were built to consolidate the town, which had revealed a dispersed character.4

2.1 An architectural sense of the city

The modern city centre of Nicosia is surrounded by elegant tree-lined suburbs, but the favored tourist sector is the old town, which is being extensively renovated. The old town is a picturesque fusion of 16th-century walls, pedestrian precincts, pavement cafes and squares, brimming with charm, character and sightseeing opportunities. The city, on the Mesaoria Plain, is centre of the Nicosia District that includes the valleys of Solea and Pitsilia and parts of Marathasa with its mountain villages, orchards, hill resorts and plethora of Byzantine churches and monasteries.5

Architectural historians have identified specific stylistic traits as belonging to specific ‘races,’ ‘ethnic’ groups or nations in Cyprus. Domes are Byzantine, pointed arches are Frankish, broad eaves are Ottoman, and wide verandas are British colonial. In common with much writing on ethnicity, scholars have seen a direct and unchanging connection between particular traits in material culture and the ethnic groups who supposedly produced them in different parts of Cyprus. The later history of buildings such as Ayia Sophia and the influence that their styles had on other structures suggest that there is not such an easy and direct relationship between style and ethnic identity in Cyprus. After the Ottoman occupation of Nicosia in 1570 Ayia

Sophia was turned into a mosque, and continued as the most important 'Cathedral-mosque' of the city, where the Ottoman governor came for Friday prayers. Ottoman policy left Orthodox churches for the Greek Cypriots to worship in but converted the Catholic churches of their Latin predecessors into mosques. This gave rise to a distinctive 'Ottoman Gothic' style that characterized major Ottoman city mosques: such as: Ayia Sophia or Aya Sofya (renamed Selimiye Cami in 1954); Haidar Pasha Camisi (St. Catherine's Church, 14th century).

In general the architectural characteristics of Cyprus are interesting, since the island has been colonized by different empires in its past. Apart from its historical heritage, architectural evidence comes from many different periods such as Classical, Roman,
Byzantine, and Ottoman, and Arab, Lusignan, and Venation rule. The Ottoman period was one of the most important periods in the architectural history of Cyprus.\textsuperscript{6}

2.2 The border of similarities

However the two sides follow different religions. Before the conflict they used to celebrate each other’s religious events such as Muslim Bayram and Christians Christmas day.\textsuperscript{7} There are points of similarities that both Greek and Turkish Cypriots share:

- Music and poetry has been used in Cyprus to transform conflict at conceptual, emotional and cultural levels.
- Dance and art are integral parts of social life between both Greek and Turkish Cypriots and they tend to have the same or similar dance costumes, instruments, melodies, and forms of artistic expression.\textsuperscript{8}
- There are many common verbal expressions, quite a few shared words, and humorous communication habits that are identical.
- Socializing is a big part of Cypriot’s life. They value humor and conversation.
- The largest part of the social activities is not concentrated in the Mosque or Church, but in the most important social institute of the village - the café shop.

On the surface, it may appear to outsiders, or even to ordinary Cypriots, that there is no 'communication problem' between Turkish Cypriots and Greek Cypriots. After all, when people from both sides get together, they get along well, often enjoying each other’s company. And since the checkpoints were opened, there have been no serious incidents of violence or other problems to indicate that the two communities are unable to get along.\textsuperscript{9}

\textsuperscript{6} Use WordNet online - WordNet Search - 3.0
\textsuperscript{8} Mary Fong, Rueyling Chuang,”Communicating Ethnic and Cultural Identity” (USA,Rowman & Littlefield, 2004), 386.
\textsuperscript{9} Benjamin J Broome “Building Bridges Across the green line” (USA, Arizona State University, 2005), 10.
2.3 Outlook of economy in the island

In the Turkish Republic of Northern Cyprus, tourism is currently one of the most significant sectors of the economy, with the majority of visitors from Turkey and other European countries. However, the tourism industry has not been able to maximize its potential, owing to the lack of direct flights from other countries and delays in the formulation and implementation of the Tourism Master Plan, which was initiated in 1994.

But the southern region of the island, the Greek part, has enjoyed rapid and uninterrupted economic growth for the past two decades. In the early 1990s, tourism became a major pillar of the economy of the southern region. However, the mass ‘sun and sea’ tourism that led to building along the coast put enormous strain on the society and its natural heritage.\textsuperscript{10}

3.0 Literature Background

The current situation in the last “walled city”, Nicosia, is in a way that social arrangements between the two sides produce opportunities for both communities to do activities inside the Buffer Zone. There were suggested strategies during the last seven years regarding the problem of Cyprus. For instance a ‘New Vision for the Core of Nicosia’ (NVP), was introduced in 2003, 22 years after the Nicosia’s Master Plan (NMP) creation. The project, conceived within the framework of the bi-communal NMP (Nicosia Master Plan) and funded by UNOPS (United Nations Office for Project Services), defines new initiatives that will enable the public to take the leading role in the rejuvenation of neglected areas, especially the Buffer Zone where many properties have been reduced to ruins.

The discussion of a federation government has been an agenda for the island from 1977. At this time president Makarios from the Greek side and community leader Denktas from the Turkish side agreed on a resolution based on a bio-zonal, bio-communal federal republic. In 1992 United Nation Secretary General Boutros Boutros-Ghali presented a set of ideas about the specifics of the federation and progress was again made in negotiations.\(^\text{11}\) This led both sides to the opening of the borders on 23rd of February 2003 which was a remarkable day for Cypriots. For the first time after thirty years in April 2003 both side could visit one another in their homes, sit together in coffee shops and restaurant, shop in one another stores and work together on a limited basis. The most recent and serious communication development occurred on 24 April 2004 known as “Annan Plan”.

In the book “Urban Issues and Urban Policies in the New EU Countries” the authors suggested an urban solution to connect the two historic parts of Nicosia, Arabahmed and chrysalinotissa, through the Buffer zone in order to create a central multi-cultural core between the two communities in the capital.\(^\text{12}\)

\(^{11}\) Thomas Diez “The European Union and the Cyprus Conflict: Modern Conflict”, (Manchester, Postmodern Union Manchester University, 2002), 190.

Charles Walker’s article in the book “Southern Crossing” identifies and discusses the problems created by the conflict of 1974 and in the absence of any clear political consensus; He proposes alternative architectural strategies as catalysts for redevelopment and reunification. He explores the role that architecture can play in addressing the political problems and the ways to create a shared urban space in order to make connections between the two sides. He describes his idea with an alternative, more radical, urban proposal developed by students of architecture in a series of studios run in Cyprus.

He suggests that “….architectural education has to transcend the technical collaboration by experts proposed by the UNDP (United Nations Development Program) plan and critically interrogate the meaning of ‘public space’.”

Based on his experience in studios run by him, he believes that if it were not for the political situation in Cyprus, it seems very obvious that there could have been some points of collaboration between the two sides in terms of making an ideal city. He suggests that “….in doing so those involved must also begin to think more critically about the real histories and politics of space and less in terms of ethnic or religious ‘narratives of loss’.”

Despite the division of the island, close co-operation between the engineers and planners on the two sides of the city with respect to the maintenance of the infrastructure, services, sewerage and electricity is ongoing, and comprehensive projects for the future of Nicosia have been revised in line with today’s realities. One significant achievement has been the formulation of the Nicosia Master Plan, a ground-breaking, bi-communal template for the city’s revitalization.

The history of collaboration between the two communities in the island started since 1970’s right after the conflict in the island by the title of “building bridges between the two communities”.

It started on 1978 with agreement for the preparation of a common sewerage system to improve the existing and future living conditions of all the inhabitants of Nicosia as Cypriots regardless of their ethnicities.

This collaboration carried on to the late 1979, the agreement for the preparation of a common physical Master Plan of Nicosia. On 1981, a bi-communal multidisciplinary team was formed in order to prepare a common planning strategy for the city and the study area was two historic suburbs of Nicosia, one in Turkish part and the other in the Greek side, Arabahmed and Chrysalinotissa.
The first phase of Nicosia Master Plan was presented on 1984 by the title of “A flexible plan adoptable to changing circumstances” and it was the formulation of a general planning strategy for Greater Nicosia. The second phase was presented on 1985 which was the preparation of a detailed operational plan for the City Centre.

Figure eight, sources: http://www.thepep.org/en/workplan/urban/documents/petridouNycosiamasterplan.pdf

The project in the historic part of the city was defined in its values as it constituting a common heritage for all the communities of Nicosia regardless of being Greek or Turkish, also it was seen as providing business opportunities for both side in the area which was subject to physical decay and socioeconomic decline for many years.15

Figure nine, sources: http://www.thepep.org/en/workplan/urban/documents/petridouNycosiamasterplan.pdf

The project described to provide preservation and rehabilitation as a multidimensional process in the “Walled City” area:

- Social objectives: Relating to the rehabilitation of old residential neighborhoods, community development and population increase.
- Economic objectives: Aiming to revitalize the commercial core and increase employment opportunities.
- Planning objectives: Balanced distribution of mixed use areas, density of development in harmony with the scale of the historic centre
- The buffer zone: considered as the most important “gluing area” for the functional integration of the city.\(^{16}\)

![Figure ten](http://www.thepep.org/en/workplan/urban/documents/petridouNycosiamasterplan.pdf)

Contribute directly to the revitalization of the historic centre and provide opportunity to the public sector to act as catalyst and stimulate private initiative.

In the following years development of Nicosia carried on inside the Buffer Zone with aim of environmental improvement of the commercial axis in order to allow it to compete with the new business centers of the modern city. The project was funded by the European Union.

One of the projects that happened during this period of time was “rehabilitating historic areas” to upgrade the environment of two of the most important historic areas of the walled city.
In the recent years restoring the urban fabric of the Buffer Zone was in process which was aimed to restore the urban fabric of two socially, economically and physically neglected areas.\textsuperscript{17}

For more than thirty years there have been sustained attempts by Cypriots from both communities to promote contact and cooperation across the Buffer Zone that has been divided the two sides for over thirty five years. The bi-communal activities, have ranged from academic seminars to cultural event and environmental projects as described earlier. Followed by these activities and joint projects, was the event of April 2003 that for the first time after thirty years both side could visit one another in their homes, sit together in coffee shops and work together on a limited basis.

3.1 Case study

As an introduction to this section it is useful to bring an example of using public

spaces to gather different groups of people in the former walled city of Berlin. The old Chapel of Reconciliation in the border of former East and West Berlin in Germany is one of these examples. The church turned out to be literally the only building left undiminished in the "Dead Zone" between the two “new” towns. With the division of Berlin in 1945 the church building found itself in the Soviet occupation zone, with most of the parishioners inhabiting the neighboring French zone. This meant that when the Berlin wall was constructed in 1961, it ran directly in front of the church on its western side and behind it on the eastern side, preventing access to both sides. This became a place where people could gather away from the Germany’s political problem at that time in the “Dead Zone”.

3.1.1 The New chapel of Reconciliation

The Chapel of Reconciliation is located at a place known as "Dead Zone." Previously it was the location of the famous Berlin wall which separated the Germans into two sides and is located on the same site as the Old Chapel of Reconciliation. It is relevant to this study because of its site which is situated between the two sides in divided Berlin.

Conceptual review

The mission of the building as a church could be defined as a place to unite and not to divide. The actual concept of the chapel building starts with the spatial fact of the site where it is situated, which is ideal to bringing two separated groups of people into one point, the concept of connection as opposed to separation. While the concept starts with these factors, the dominating factor in the whole design is the use of intersecting lines in one point, which is the point of meeting together. An oval shape encloses another, smaller oval, centered on the same point, but turned within. This point was determined by the intersection of an East-West axis and one that runs from North West to South East and is drawn parallel to the central axis of the old chapel.19

Planning Review

In plan the building consists of two ovals, the outer wall of wood planks and inner oval of thick rammed earth that defines the prayer room. The architect Rodolf Reitermann explains that: “The gravitas characteristic of the oval shape has been used as a focal point of the building and it makes it more important than the other part. The body of the building does not become the focal point of the plot but leaves as much free room as possible to indicate the volume of the former church”.  

Figure fourteen sources: Phyllis Richardson, New Sacred Architecture, p.78.

In the Church of Reconciliation building, the design began with a closing circle, by revolving and creating niches in a ring.

Figure fifteen sources: Phyllis Richardson” New Sacred Architecture” p.79.

---

The design is generally based on an oval and circular shape; circular shapes are a common shape in gathering spaces.

3.1.2 The place of peace

One of the very recent projects in reconciliation theme is “The Pyramid of Peace” building in Kazakhstan by Sir Norman Foster, completed in 2006. It was conceived as a permanent venue for the Congress and a Global Centre for religious understanding, the renunciation of violence and the promotion of faith and human equality.  

In addition to representing the world’s religious faiths, the Pyramid houses a 1,500-seat opera house, educational facilities, and a national centre for Kazakhstan’s various ethnic and geographical groups. This programmatic diversity is unified within the pure form of a pyramid, 62 meters high with a 62 x 62 meter base.

Figure sixteen sources: Foster’s Pyramid of Peace in Kazakhstan - Wired New York Forum

Site Review

The location of “The Pyramid of Peace” building is in the central Asian State capital city of Astana, Kazakhstan.

About the site Norman Foster has noted that “the unusual thing about ‘The Pyramid of Peace’ building is that it stands in a site where there are no other references.” This advantage of not having any references around the site gave Foster an opportunity to give more conceptual values to his building as a “Pyramid of Peace”. In this example Foster has been taken this advantage and improves his building’s monumental qualities.

Conceptual Review

As Norman Foster noted “the pyramid is like a gigantic container made to bring together political, religious and cultural differences”. The assembly chamber is raised at the top of the building, supported on four inclined pillars says Foster, to "symbolize the hands of peace".

The architecture of symbolism is one of the ways in which architects combine their work to achieve a meaning in order to satisfy their concepts, as Robert Venturi says:

“All architecture includes an element of symbolism in its composition whether it is admitted or not by its designers. Any architecture no matter how much it’s aesthetic employs abstraction or adopts imagery, which is new will evoke in its perception expressions and meanings that derive from reference or association. These qualities enrich the character of the architecture as a whole. Valid architecture almost inevitably employs some elements that are conventional, familiar or historical and that makes for implicit or explicit symbolism; even Modern architecture in its heyday, whose aesthetic was essentially based on an expression of function and structure, derived some of its meaning from vocabularies that referred to industrial vernacular architecture of the early 20th century and to advanced structural engineering of the late 19th century. From these sources a symbolism was derived that was by implication universal in its meaning.”

Materiality Review

The building is clad in stone, with glazed inserts that allows light into the various internal functions, the pyramid has an apex of stained glass. It is organized around a soaring central atrium, which is animated by shifting colored light patterns and is bathed in the golden and pale blue glow of the glass (colors taken from the Kazakhstan flag). In this building Norman Forster references some of national identity factors to the color of the building material. There are also references to the historical buildings such as Boullée.

Figure eighteen, sources:http://www.hughpearman.com/articles5/pyramid.html


The pyramid - and the rendering of Foster's cross-section shown here - deliberately echoes some of the grand Utopian projects of 18th century French architects.

Etienne-Louis Boullée and Claude-Nicholas Ledoux shortly before the French Revolution. Boullée's pyramidal cenotaphs are the clear inspiration here. Some of these were square; several were cones, with circular plans. Foster's, with its square plan and circular internal elements, thus combines two of Boullée's geometric preoccupations.28

---

Spaces Review

The glass lens in the floor of the atrium casts light down into the auditorium and creates a sense of vertical continuity from the lowest level of the building to the very peak. Apart from conceptual reasons, the pure natural light will have an effect of being a sort of focal point for the users and giving direction.

![Image](Figure twenty one sources: Foster's Pyramid of Peace in Kazakhstan - Wired New York Forum, http://wirednewyork.com/forum/showthread.php?t=5845)

The internal spaces in the “Pyramid of Peace” building have been designed in a circular shape, particularly in the place called circular chamber, where 200 delegates from the world’s main religions will meet every three years, which is based on the United Nations Security Council in New York. 29

Norman Foster has used circular shapes in some other of his projects like the German parliament dome. Circular shapes are suitable shapes for centralization orders in architecture.


3.1.3 The New African Union Building

The African Union (AU) made a request to the German Government to give assistance in upgrading the strategic management capacity of its Department of Peace and Security. In this connection the German Government is funding a new building offering improved facilities for planning and managing peace missions. Hescher+Jehle Berlin based firm has won the competition.

An overview of the spaces in the building shows that the curved and circular shape has been employed as a design tool in most parts of the building. The plan in AU Building is to establish the kind of "integrated bridges" deployed on modern-style peace missions, i.e. bridges with both a military and a civil component.\(^{30}\)

In figure nine the main foyer area of AU Building is open to the roof providing natural light into the space and creating a vertical openness with passages, bridges and stairs.

---

\(^{30}\) Support for the African Peace and Security Architecture
4.0 Research objective

Architecture combines the mind, the eye, and the body unlike any other discipline because it produces spaces that are important to the mind, eye, and the body and now architecture is experiencing a return to thinking about being there in relationship to a social constituency. Peter Eisenman states:

“Because of media the body has been cut off from the mind and the eye. In other words we become so accustomed to sitting, watching TV, watching video, watching film, we become a sedentary culture. What this building tries to do is to bring the body back into the mind-eye relationship. Because you are constantly being thrown off our guard. You are brushed up against things. Things are too small, too narrow; they are too wide; you feel a sense of your body in the space. Everybody can see everybody. You see bits of pieces fragments. You see people in ways you have never seen before. The building frames and reframes the body and activity and motion and that’s what is exciting. I did not want to make a static building. I wanted to throw off. The walls tip and curve and move.”

“Humans can behave in surprising ways when we bring them together. When they are separated they are simply deep into their personal ideas and beliefs. But once we get a bunch of humans together, communicating, and collaborating, we can observe the wisdom of crowds. This unpredictability makes arranging social spaces the most challenging work a designer can take on. But while design can never control people, it can provide ways to engage activities”.

As humans, we are fundamentally social creatures, from birth we orient to other people, and as we develop we acquire abilities for interacting with one another, ranging from expression and gesture through spoken and written language. As adults we are exquisitely sensitive to the actions and interactions of those around us. Every day we make countless decisions that are shaped by our social context. According to the point mentioned above, the social value of public space proposed in this paper need to be well understood, yet is relevant to a number of key issues, such


as community relationships and how people form an attachment to an area, opportunities for people to engage with others and develop tolerance of diverse 'others', and opportunities for social inclusion.

5.0 Methodology

What architecture has to offer is long experience in exploring the interrelationship between physical spaces and social interaction. This project will focus on the question of how to design in such a system that allows groups of people to observe (observations could be a social tool used), their interactions and steering them to make progress towards a shared goal which is flying together. The following will be a description of a project toward this end.

This thesis takes the position that this study is best happening on an Island that is disconnected from its surrounding but it is also connected in various ways to the world. This simultaneous separation and connection will be part of the architectural language used in design of the Nicosia International Airport. I am proposing a public space related to the means of travelling, and sharing a social activity that might lead to better understanding. Divergent cultural values and perspectives along with utilizing more abstract, less conventional images and spatial qualities will be embraced in this thesis to help me set alternative design parameters and discover new ideas for spaces which I believe can help bring the adversaries together. These will become spaces of sharing and common ground, spaces that facilitate trust and empathy.

5.1 Architecture of reconciliation

“The space of architecture is nothing less than the schematization of social relations worked out in a literal form…” 33

33 Jan Jagodzinski, Pan Deconstruction, (London, Lawrence Erbaum, 1997), 49.
Architecture can help to create connection between people. Architecture of connection can help (passive and complacent) public by stirring our imaginations and challenging our assumptions. It can help us awaken empathy in other human beings and their circumstances or plights. Conflict is a necessary by product of tensions and differences, but escalates to destructive levels when parties fail to see or accept differences in each other and come to abuse or transgress each other’s fundamental rights to exist.

Architecture of reconciliation in this project begins with the sharing of same road for both sides. At first, in isolation, adversaries need to learn more of the other, which is not possible without some sort of connection. These connections will start from using the same public places such as car park at the beginning continue by using other common spaces in the airport and end by boarding and possibly sitting next to each others. In this way of slow connections, they might be prepared to open themselves to each other in the aircraft.

6.0 Design Process

The factors mentioned above have been used as design parameters in this process. Using these frameworks, the design is expected to be unfolding towards a communal space by activating geometries that are informed by political, social and environmental conditions of both sides in a way that both sides will be more in connection. Design parameters used in this study as design tools are:

- Orientation of the building
- Characteristic of the site in the buffer zone
- The relation of the site regarding the border of two communities
- The fact of the neutrality of the site
- The concept of movement toward neutrality
6.1 Project brief

- According to the settlement of both sides after the conflict of 1974 which divided the capital in two parts the site should be located in a point where both sides could be able to have equal access to the airport. Therefore the location of the old Nicosia International Airport is the choice for this proposal. The fact that the new airport is located in the buffer zone which doesn’t belong to any side and is a neutral zone could make it accessible for both to use these facilities.
- Overall design should provide possibilities of connection for the two groups.
- The intended location of Cyprus International Airport which will be in the capital city of Nicosia should define and improve the reputation of Cyprus as a recognized destination country for the world.
- Nicosia International Airport would be open for civilian passenger and cargo traffic under the administration of both sides in cooperation with the United Nations and the International Civil Aviation Organization (ICAO). The United Nations would be responsible for the security of the airport.
- Overall design should represent a place for connection of both sides and at the same time be a part of International and global networks.
- There will be a free access to and from the airport for both sides. Both Greeks and Turkish Cypriots will be driving a shared motorway to the airport which begins from the Nicosia walled city. The connection of roads from both sides will be at the beginning of the motorway which starts close to downtown Nicosia.
- Foreign visitors who entered Cyprus through new Nicosia Airport could during their stay in the island, travel unhindered between the two sides. This will also improve the connection between the two, since the international travelers as neutral passengers can travel to both sides of the island.
- The new airport in the Buffer Zone would be a special area for bi-communal contacts and commerce, a kind of free trade zone in which both sides could trade goods and services.
6.2 Site analyses

Considering the spaces as neutral spaces could be a better method to avoid the separation parts along the process of design. There are facts that could support this idea:

- The location of the airport is inside the UN buffer zone which is a neutral strip between the two sides.

- Tourists visiting Cyprus generally do not belong to any side.
6.3 The Site

The old Nicosia International Airport is an abandoned airport. It is located on the west side of the Cypriot capital. It used to be the main airport for Cyprus, for both Greek and Turkish Cypriots since its initial construction in the 1930’s, and also served as an army base. The main terminal was built in 1968 to increase transportation for Cyprus Airways. After the conflict of 1974, the airport now lies in the UN controlled Buffer Zone, and has been inoperable ever since.\textsuperscript{34}

\textbf{Figure twenty six resources: http://earth.google.com/}

\textsuperscript{34} Wikipedia the free encyclopedia, Nicosia International Airport http://en.wikipedia.org/wiki/Nicosia_International_Airport (Accessed November 12\textsuperscript{th} 2008).
6.4 Growth pattern of the Nicosia urban area

Nicosia is the fastest growing city in the island. In 2001 the population of the southern part of Nicosia was around 198,000 and is predicted to reach 224,000 in 2012.35

The growth pattern of Nicosia from 1945 to 2003 shows the urban growth is not moving towards the proposed airport site. Because of the fast population growth, ways of extension or future developments of the airport should be considered in designing and planning.

6.5 Overview of weather condition in Nicosia

Mediterranean climates are characterized by long and dry summers and fairly mild, rainy winters. The shoulder seasons of autumn and spring are generally quite short and experience mild conditions. Cyprus is under the influence of a shallow low pressure trough which extends from the great continental depression that is centered over southwest Asia. As a result summer heat can at times be unbearable and the skies during these months are often completely cloudless. This also keeps winters around the coast exceptionally mild; snow is only observed at higher altitudes and only very rarely in the lower regions. The city of Nicosia (known locally as Lefkosia or

---

35 Christodoulos Demetriou, The Nicosia urban area(Cyprus, Department of Town Planning and Housing, 2001), 259.
Lefkosha), which is located in the middle of the island, experiences scorching summers, because of its distance from the coast.\textsuperscript{36}

The centre of the island consists of two major mountain ranges, the Kyrenia range in the north and the Troödos range in the south. These ranges rise to over 6,000 ft. As a result of their altitudes and the barrier they create to wind, they both have cooler and wetter climates and so are green environments.\textsuperscript{37} The tables below display average monthly climate indicators in Nicosia based on eight years of historical weather readings.

<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Temperature</td>
<td>12</td>
<td>13</td>
<td>16</td>
<td>21</td>
<td>27</td>
<td>30</td>
<td>32</td>
<td>29</td>
<td>24</td>
<td>18</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Avg. Max Temperature</td>
<td>14</td>
<td>16</td>
<td>18</td>
<td>23</td>
<td>29</td>
<td>33</td>
<td>36</td>
<td>36</td>
<td>32</td>
<td>28</td>
<td>21</td>
<td>17</td>
</tr>
<tr>
<td>Avg. Min Temperature</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>10</td>
<td>16</td>
<td>19</td>
<td>22</td>
<td>22</td>
<td>19</td>
<td>15</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Avg. Rain Days</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Table one source: http://www.cyprus-weather.com/article_cyprus-average-temperatures-c

The diagram below shows the sun path in Nicosia.

![Sun path diagram](http://www.gaisma.com/en/location/nicosia.html)

Figure twenty eight sources: http://www.gaisma.com/en/location/nicosia.html


6.6 Current operating airport in Cyprus

The Turkish Republic of Northern Cyprus is currently not allowed to receive direct international flights as it is not recognized as a separate country, so passengers must fly via Turkey. The EU imposed a trade embargo on the north 19 years ago. 

6.6.1 Ercan airport in the Turkish part of the island

Ercan airport is not designed in accordance with international airport standards and as a result there are no international airlines operating to it. It is a very small airport with an apron for seven aircraft. Ercan airport currently has a 2.5 kilometers landing field which is enough for large aircraft landings but lacks the length for takeoff.

![Map of Cyprus showing the location of Ercan and Larnaca airports.](http://www.cyprus44.com/news/144.asp)

Picture twenty nine sources: http://www.cyprus44.com/news/144.asp

6.6.2 Larnaca International Airport

Larnaca airport was built after the conflict of 1974 to serve as the island’s main airport. The airport took the burden of the rapid development of tourism during the 1980's and 1990's. It was developed without a master plan and therefore lacks the

---


necessary capacity and functionality of standard international airports. The airport handles under 5 million passengers per year.\(^{40}\)

6.6.3 Paphos Airport

Paphos airport was developed in 1983 to facilitate tourist development of the western part of the island. The airport lacks the necessary capacity and its main problem is its seasonality of its traffic. Paphos airport handles 1.5 million passengers per year.\(^{41}\)

6.7 Air traffic condition

According to the traffic statistics of Cyprus airports there is an extreme seasonal traffic. The following study is to find the principle type for the proposed airport. In a ten years time period the number of passengers doubled in the two main airports (Larnaca and Paphos) and reached to 6.5 million passengers per year.

![Figure 1](image)

Passenger traffic shows extreme seasonality over the year. As is shown in the graph above, the highest peak is in the summer months with facilities often reaching


saturation and as a result causing congestion and delay in flight. Seasonality also exists within the week days.

**Figure 2**

Air Transport Movements per Month (2003)

7.0 Design work

One of the methods used in this research to find an architectural solution for this matter is using a diagramming process. The models below were done as a result of the arrangement of these integrated lines:
The integration of lines, described above, provided a method to use the separated lines, describing the process of “slow gathering”.

The diagrams below used to describe the two groups as two parallel lines with two parallel destinations. As for the aim of this proposal, the diagram explains the ways through “slow integration” of the parallel lines. This study shows the possibilities of directing both sides to one point by engaging them to meet at some points on the way to destinations when they finally get together.

The diagrams above have been used to create a conceptual model to see whether it could explain the process of “slow integration” in three-dimensional form. Some parts of a diagram could be useful for the design for the airport design.
The possibilities of using the cone as an underground car park and directing the two sides (Greeks and Turks) to the different levels in which they could see each other’s activity. In this model the ground floor level could be problematic as it is the arrival point of both sides. The whole circulation has been divided into three parts: Greek arrival in green color, Turks arrival in red and communal area in green and red color. This gives options for both sides to choose where they want to drive or park.

The method of “slow integration” (that applied at the beginning) does not lead the project to the right direction as the process of “slow gathering” could accrue points of separation in some part of the project. It could also complicate the circulation. This is against some basic requirements for an airport; a good airport design is described by its simplicity and easy circulation. Another problematic point in this plan would be the possible walking distance according to the number of gates.

Walking in terminals is one of the most important, most controversial, and least understood activities which in some airports exceed 457 meters. This has been
considered unacceptable. But walking distances of 305 meters have gradually become accepted and can be used as a planning limit.\textsuperscript{42}

The current view is that a separated space would not work as it would be against the idea of “getting together”. Also the process of “slow getting together” would not be a good option as:

- It will create a space which is separated at the beginning of the entry into the airport and seems to be not useful for this task.
- It could be problematic for an airport design as one of the very important points in designing airports is their simplicity of movement.

According to these facts, future extension of the airport would be even more problematic since airports should be future proof.

Basically engaging the project with the social aspects and the political situation of the island could result a separation in some parts of the design. The fact is that people from both sides could finally sit next to each other after boarding. Therefore it could be assumed that both sides come together at one point along the path and the rest of the journey will be a joint journey. The figures below show options of how the two sides of the island could move to the assumed neutral point. In these diagrammatic options red color is representing Turkish Cypriots; yellow represents Greek Cypriots and white color as a neutral point. This condition will be used as an orienting device in this design process.

\begin{figure}[h]
\centering
\includegraphics[width=0.7\textwidth]{figure30.png}
\caption{Figure thirty resources: http://earth.google.com/}
\end{figure}

In this method (as shown in previous page diagrams), the middle point or neutral point is assumed as a leading point to pull the two yellow and red circles closer together in which the two circles share one part of each other. As the red and yellow lines connect to each side, it is assumed that they are transferring and moving (reds and yellows) in to the circles, and finally to the neutral point.

The concept of movement is one of the common concepts of airport design. Here the concept of “movement” is used as a design generator.
In this section the ways of developing a space has been studied. This has been done to understand how the objects in different shapes could create an architectural space.
The concept of movement has been modeled and examined in different ways to translate the movement to a physical object.
One suitable shape that could be a physical model of movement concept was chosen to develop for the next stage.
The process of movement towards the neutral point has been translated to the group of lines from each side, presenting the two parties moving towards each other to one point.

The lines translated from the plan of model above have been the main planning generator of this project.
The last model was used to come up with a shape of the building.
7.1 Project development

The intersection of architectural properties has been used in the intersection of the two wings to the main part of the terminal building which represent the core area and is the intersection of most airport activities. This method has been employed for this project to maximize the connection possibilities, as well as the visual contact between the users.
In planning Nicosia Airport the main point in the design was to create opportunities to connect people by using architectural connections such as bridges and floor extensions, as well as directing all connections to one point of integration.

7.1.1 Public transport

The roads connected to the new Nicosia International Airport have been designed to be shared between Turks and Greeks alongside the international travelers. The starting point of the joint motorway is considered to be close to the old Nicosia walled city where an easy access for both sides is possible. This would be the beginning of the journey for both sides driving on the same roads after thirty years of no sharing. The security on all roads inside the Buffer zone would be the United Nations responsibility.
Public transport in Cyprus is limited to buses and service taxis (stretch taxis that run on predetermined routes). There is no train network and no domestic air services in either the North or the South. Therefore each side either use their private vehicles or use their own public transport (which is normally bus and taxis) transferring passengers from each side including tourists visiting the island to the airport. After driving in the same motorway they will be joining in the proposed bus taxi stations, or car park, in the central point of the terminal. The bus and taxi stops are shared at both arrival and the departure level.

Figure thirty four resources: http://earth.google.com/

---

7.1.2 National roads to the airport

The new efforts being made to incorporate public transport systems into airport terminal complexes, good high speed road approaches and ample car parking is essential parts of the airport terminal context. Separated junctions and links to the national motorway network are therefore very important. Planning of the roads to the terminal of Nicosia Airport from the main shared motorway has been designed on a circular principle. This effort has been made to improve the traffic flow in one direction.
Circular roads branching from the main shared motorway take the travelers to the ground floor of the airport which is the arrival level. The same principle has been used for the departure level at the first level. The taxi, bus and drop-off lanes have been designed on each floor and they connect to the shared motorway.

7.1.3 Car parking

There will be three types of car parking available for the airport:

- A long term car park which is affordable for the passengers who fly away for a few days. The shuttle will transfer the passengers to the main terminal building.
- A short term car park which is closer to the main terminal building.
- The car parks have been designed in a circular shape to give more visibility to the users.
- An underground car park which is located under the terminal building and will be used mostly by the staff.

- Since the central core in the main terminal building is the centre of most movement in the airport and it is naturally lit from above, there will be a circular transparent flooring through the under floor car park. This will allow a circular natural light into the car park, as well as the point to transfer to the next levels.
ARCHITECTURE, THE BRIDGE BETWEEN TWO ETHNICITIES
7.2 Intermediate planning

A key factor in the layout of the plan is the configuration of the runways and the relationship between runways and the terminal building. There is clearly correspondence between runway and terminal capacity, because they both deal with the transport of the same unit of people.

According to research on the existing airports in the island (mainly Larnaca and Paphos airports) the current airport with one runway is not satisfying the seasonal passenger traffic. Therefore to increase the number of passenger handled, two runways have been planned to reduce any possible shortages.

Two main aspects of runway planning have been considered in the layout of Nicosia airport:

- The length of the runways which are approximately 2.5 Km and will be suitable for the current aircraft sizes as well as the future generation of large aircraft. For the largest aircraft a runway length of 2-3 Km is required.\(^{44}\)
- The alignment of runways. Two or more runways allow airports to cater for simultaneous landings and take offs in high density airports.\(^{45}\)

There are three main runway alignments:

The angle runway which is considered to be the layout of the proposed airport has advantages of more flexibility in maintaining operations in cross-wind conditions, flexibility of aircraft movements in taxi ways to terminal and flexible accessibility compared with parallel runways. Figure below shows the configuration of the runways in relation to Nicosia airport terminal building.

7.3 Functional type of airport terminal

Four principal type of air ports are:

- Side by side arrival and departures on the single main level: These are suitable for smaller scale operations, where first floor movement of
passengers from terminal to aircraft via telescopic loading bridges is not justified.\textsuperscript{46}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure34}
\caption{Side by side arrivals and departures with two level terminals: This design obviates the need for elevated roads because all kerbside activities can take place at ground level. Escalators and lifts have to be provided to take departing passengers up to the boarding level. London Heathrow terminal three is a particular example of this type.\textsuperscript{47}}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure35}
\caption{Vertical stacking of arrival and departures: Most large scale terminals now adopt this configuration. Departure facilities are invariably at the high level, usually accompanied by an elevated forecourt, with arrivals facilities below. It is essentially economic and convenient for passenger and baggage movement. Departing passengers arrive at an elevated forecourt and move either on the level or down a short distance by ramp to the aircraft loading}
\end{figure}

\textsuperscript{46} Christopher J. Blow, \textit{Airport terminals}, (Oxford, professional publishing), 33.
\textsuperscript{47} Christopher J. Blow, \textit{Airport terminals}, (Oxford, professional publishing), 34.
point. Arriving passengers also, after leaving the aircraft, move downwards to baggage reclaim on the lowest level, and landside facilities.\textsuperscript{48}

Vertical segregation: High volume of passengers, in high peaks, particularly those using wide bodied aircraft on long haul routes, are best served by one way circulation. Segregation can theoretically be either vertical or horizontal, but in practice the only feasible way to achieve it is by placing departing passenger routes at high level with downwards circulation to the aircraft, and arriving passenger routes below. Bahrain international airport is a good example of this type of terminal.\textsuperscript{49}

Vertical segregation principle type of terminal could be a good solution for the existing airport traffic in proposed site. This functional type has been chosen for Nicosia Airport because seasonal air traffic is high in Cyprus especially on summer (as described in previous pages) and this type of airports helping the air traffic system to perform better in the high traffic seasons.

\textsuperscript{48} Christopher J. Blow, Airport terminals, (Oxford, professional publishing), 33.
\textsuperscript{49} Christopher J. Blow, Airport terminals (Oxford, professional publishing), 34.
(Note: because of sizes of drawings only the main part and the right wing of the airport have been presented in this document).
ARCHITECTURE: THE BRIDGE BETWEEN TWO ETHNICITIES

DEPARTURE FLOOR PLAN

MAIN CORE

NEUTRAL LINE WHICH TRANSFORMED TO A BRIDGE AND TAKES PASSENGERS TO THE LEFT AND RIGHT DEPARTING GATES

DUTY FREE AREA

VOID

OUTLINE OF LEFT DEPARTURE LOUNGE

SKY LIGHT (NEUTRAL LINE) WHICH GIVES DIRECTION TO THE PASSENGERS
Vertical segregation giving a good circulation system to the Nicosia terminal building, but at the same time intersection of people has been considered in planning and level changing.
At Nicosia Airport the main core represents a neutral point which creates a straight opening to the roof top. The importance of this main core is that it focuses all the terminal activity in one point in order to make visual connections from person to person or space to space.

### 7.5 Levels and connections

The main core of Nicosia’s International building is open to the sky from the sides of the control tower, creating an open atrium to the ground floor. This is the technique which has been used in ‘The Pyramid of Peace’ except for the airport it is circular in shape instead of a pyramid.

In this part of the airport, the circular shape is around the very important gathering part of the building which comprises customs, immigration, arrival concourse, and all
the stairs and vertical connections. Conceptually celebrates the gathering event with natural light.

7.6 Air Craft loading system

There are several ways for passengers to transfer from terminal to aircraft:

- Walking across the apron and up the steps.
- Riding a bus to get to the steps.
- Riding on a low floor, walk up the steps.
• Ride in a mobile lounge direct from the terminal floor level to the aircraft door.
• And finally walk through a loading bridge directly into the aircraft.

In Nicosia International Airport a docking and loading bridge system has been used to transfer the passengers to the aircraft in both arrival and departure levels. There are advantages in this system which makes it suitable for this project such as:

• Faster transfers for the airport at busy peak times
• Short walks in the right direction inside the building
• Low operational cost compared to mobile and bus transfer system as described above.
• Not sensitive to adverse weather
• Increasing flexibility in terminal use compared to other methods.

Air bridges are very flexible and they can be positioned in regards to the position of the aircraft to the building. The figure below is the example of flexible loading bridge configuration, based on Zürich Airport terminal.

![Image of Air Bridges](image)

*Figure thirty eight sources: “The Airport terminals”. p 176.*

The apron drive bridge offers many possibilities including the sort of apron and stand flexibility. In Zürich International Airport there are sets of different sizes of tunnel apron drive bridges. The majority are designed as 19-20 meters retracted and 30-33 meters extended, but two of them designed as 24 meters retracted and 40 meters extended.50

Figure below shows the connections of air bridges of different levels in Nicosia International Airport.

ARCHITECTURE, THE BRIDGE BETWEEN TWO ETHNICITIES

CROSS SECTION C
Air side faces are conventionally used for fixing guidance marker boards of two types AGNIS and PAPA to guide the pilots to the accurate position for the bridge connection.

In view of the variable distances between ground and aircraft sill, between terminal floor level and door position, and between aircraft centerlines and door position, there are many alternative devices available to bridge the gap between terminals and aircraft.

- Elevating sliding bridges, fixed type, non telescopic
- Nose loader bridge
- T-bridge, single or double
- And Apron Drive Bridge, telescopic with 2 or 3 tunnels with vertical movement. This type has been chosen for the proposed airport as it offers great flexibility in movement.

7.7 Materiality

Generally there are three type of main materials used in the new Nicosia International airport:

- Floors are built of concrete slab panels. Concrete is the most common domestic and commercial building material in the island.
- Structure mainly is a combination of “Parallel Chord Truss “and “three dimensional truss” systems supported with structural tree columns. This system is mainly used in the whole building apart from one side of the neutral line in the departure and arrival wings.
- Light weight aluminum roof panels
- Light weight façade structure frame with glazing

Such layering exploits the tectonic properties of the material and helps orientate passengers in terms of direction.
STRUCTURAL DETAILS AND BUILDING ENVELOPE
7.7.1. The choice of finishes

Internal finishes

The interior design and finishes of the proposed airport designed in a way to help the passenger to distinguish the main sequence of spaces and their intended use. For instance the structural tree columns have been used in the areas where people are in move i.e. in the middle passages of the wings.

![Image: Interior view in departure level through the departure gates]

External finishes

- White plaster coating on the part of the wings
- White illuminated aluminum roof panes
- White coated glazing frame
- White coated exterior structural elements
7.8 Design environmental consideration

The aim of this study is not focused on the environmental aspects of the site, but addresses some architectural solutions regarding the environmental and climate situations that are crucial to the site. This is to provide comfortable spaces within the airport at different seasons for the users, particularly in summer time.

Noise

- Using standalone acoustic glazing for the façade as well as the angle of façade reduces the impact of the noise inside the building.
Natural ventilation and heat gain

- Each level has been planned in a way that minimizes the enclosed spaces. Basically the three main spaces (two wings and the core) are connected to one another; therefore the fresh air from one part can be transferred to another.
- Angle of the façades helps to reduce the heat gain from the glazed façade also reduces the chance of reflection of light.
- Increased size of over hangs protects the building from direct reflection of sunlight.
- Because of very hot climate and long summer seasons the matter of heat gain is more important than heat loses.
- High ceiling in each level helps to ventilate spaces within the departure and arrival wings.
- The gaps in between the curved waved roof allow natural ventilation effect in the hot summer season.
ARCHITECTURE: THE BRIDGE BETWEEN TWO ETHNICITIES

CROSS SECTION B, WINGS AND MAIN CORE CONNECTION AND VENTILATION

CROSS SECTION A, WINGS AND MAIN CORE CONNECTION AND VENTILATION
One of the strategies to come up with a solution for heat gain is by using the Greek ancient technique of using the white color for the building elements. In most of the Cycladic Greek islands, houses were painted white to reflect the harsh summer sun.

"All Cycladic island houses were quite well insulated, although with primitive means -- walls were built with stone (enduring heat and cold very well) while roofs (vaulted or not) were insulated too, with a combination of wood, mud, hay, and pozolanic (volcanic ash) cement."

---

Natural Lighting

A natural lighting strategy used in the design of the proposed airport allows a large amount of natural light into the terminal. The trend towards greater natural lighting in terminals is a means of saving energy, of reducing the building up of heat from artificial sources and helping with passenger orientation.
8.0 Conclusion

Research question:

How might architecture foster greater empathy between two communities?

The aim of this project is not about ‘bringing peace’ to the island, but is to engage the two sides in a public space in the neutral zone (Buffer Zone). The proposed airport is to accommodate the two sides of Cypriots (Greek and Turkish Cypriots) in a bi-communal space along with international travelers visiting the island, in order to facilitate interaction between them away from political and religious differences.

Based on the type of public space which is an airport and the specific situation of the island this study has been moving towards ‘connection’ in as opposed to “separation” as a concept for an’ Architecture of Reconciliation’. In the process of designing the airport, creating a space in which both side could be together was a focus rather than showing the process of getting together. In this project the airport is assumed as a neutral point between the two sides of the capital city, Nicosia.

Architecture can set parameters of consciousness by holding the mind to focus on certain capabilities. Architecture can reflect and shape how to perceive ourselves and community. Architecture may not bring “peace” but it can help ‘reconciliation’ by providing shapes to the physical world and as a result shape our mental world. In order to achieve that, regarding the current situation of the island, design needs to focus on several aspects:

- Social function of the place: In this way architecture can create spaces and places in which people can carry on their activities optimally, primary elements in this subject are communication and space connections.

- Spatial organization of activities: by focusing on social characteristics of the place. Architecture can provide optimum support for the activities desired by properly arranging the available spaces. In the subject of this study, this is by setting related activities such as immigration points next to one another and
providing efficient visual communication between the two groups. And also by separating activities that are likely to be ideologically important such as religious activities.

- By cultural function of the public place; in the way that building satisfies requirements relating to the form and character of the spatial environment. The cultural function involves aesthetic, architectonic, planning factors.

- Architecture could be introduced as a symbolic function in relation to reconciliation; it can be as the material embodiment of the specific idea such as reunification or reconciliation, to its users. This makes it a cultural object, an object with social and symbolic significance and meaning.

The building proposed in this study has been designed in a way that people from both sides, together with international visitors would have the opportunity to experience a journey that is towards one goal, flying. This journey begins from driving in the same road to the airport inside the Buffer Zone, refreshing memories from the time when they were sharing the same road. The journey continues with using the same car park as a public space that is shared between the two sides regardless of the side they belong to. On the way to depart from the island they use the same facilities. This would give them a sense of being in a public place that belongs to them as Cypriots. The facilities in the airport have been designed in a way that both sides could use the same immigration counter, duty free shops, food court, and café shops etc and both sides have been treated evenly for instance the Turks have their own mosque and the Greeks their own chapel.

The shape of the building which consist of a main core and two wings, not only is not limiting the connections but also increasing this opportunity. In the wings flights are not categorized based on any side and the whole airport operates very similar to an ordinary airport. For instance a flight from Nicosia to London is boarding the “passengers” regardless of the side they belong to. So in this way Greek and Turkish Cypriots, and international visitors of course, get on board from the gates in both wings.

On the way back to the country, in the arrival, passengers will have the same experience. They will arrive to the same point in the Buffer Zone (The Nicosia
International Airport) using the same arrival lounge and customs and finally meet their family and friends together, waiting for them in the arrival hall.

In this study I experience the relationship between a spatial imaginary of ‘reconciliation’ with a physical architectural object. And here I discover that the architecture which was created from ‘reconciliation’ concept has special qualities.
9.0 BIBLOGRAPHY

Books

2. Diez Thomas, The European Union and the Cyprus Conflict: Modern Conflict, Manchester, Postmodern Union Manchester University, 2002.

Articles


DVD’S

Websites

Figures

1. Figure one, sources: "An Analysis and Review of the Divided City of Nicosia, Cyprus, and New Perspective".
2. Figure two, sources: "An Analysis and Review of the Divided City of Nicosia, Cyprus, and New Perspective".
3. Figure three, sources: "An Analysis and Review of the Divided City of Nicosia, Cyprus, and New Perspective".
4. Figure four, sources: "An Analysis and Review of the Divided City of Nicosia, Cyprus, and New Perspective".
5. Figure five, sources: "Urban Issues and Urban Policies in the New EU Countries.
6. Figure six, sources: http://www.thepep.org/en/workplan/urban/documents/petridouNycosiamasterplan.pdf
7. Figure seven, sources: http://www.thepep.org/en/workplan/urban/documents/petridouNycosiamasterplan.pdf
8. Figure eight, sources: http://www.thepep.org/en/workplan/urban/documents/petridouNycosiamasterplan.pdf
10. Figure ten, sources: http://www.thepep.org/en/workplan/urban/documents/petridouNycosiamasterplan.pdf
11. Figure eleven, sources: http://www.thepep.org/en/workplan/urban/documents/petridouNycosiamasterplan.pdf
12. Figure twelve, sources: http://www.thepep.org/en/workplan/urban/documents/petridouNycosiamasterplan.pdf
14. Figure fourteen sources: Phyllis Richardson, New Sacred Architecture, p.78.
15. Figure fifteen sources: Phyllis Richardson" New Sacred Architecture" p.79.
18. Figure eighteen sources:http://www.hughpearman.com/articles5/pyramid.html
19. Figure nineteen sources:http://www.hughpearman.com/articles5/pyramid.html
20. Figure twenty sources: Figure four sources: Foster's Pyramid of Peace in Kazakhstan - Wired New York Forum, http://wirednewyork.com/forum/showthread.php?t=5845
23. Figure twenty three sources: http://www.auswaertigesamt.de/diplo/en/Aussenpolitik/RegionaleSchwerpunkte/Afrika/G8FriedenSicherheit/FriedensSicherheitsarchitektur.html
24. Figure twenty four, sources: "An Analysis and Review of the Divided City of Nicosia, Cyprus, and New Perspective".
25. Figure Twenty five sources: "An Analysis and Review of the Divided City of Nicosia, Cyprus, and New Perspective". (2007) page 231.
26. Figure twenty six resources: http://earth.google.com/
27. Figure twenty seven sources: Christodoulos Demetriou "The Nicosia urban area" Department of Town Planning and Housing, Nicosia, Cyprus.
28. Figure twenty eight sources: http://www.gaimna.com/en/location/nicosia.html
29. Figure twenty nine sources: http://www.cyrus44.com/news/144.asp
30. Figure thirty resources: http://earth.google.com/
31. Figure thirty one resources: http://earth.google.com/
32. Figure thirty two resources: http://earth.google.com/
33. Figure thirty three resources: http://earth.google.com/
34. Figure thirty four resources: http://earth.google.com/
35. Figure thirty five sources: Brian Edwards"The modern airport terminals"Spon press,New your, 2005,p. 52.
36. Figure thirty six sources: Christopher J. Blow"Airport terminals" Butterworth-Heinemann, the University of Michigan 1996, p 33.
37. Figure thirty seven sources: Christopher J. Blow"Airport terminals" Butterworth-Heinemann, the University of Michigan 1996, p 33.
38. Figure thirty eight sources: Christopher J. Blow"Airport terminals" Butterworth-Heinemann, the University of Michigan 1996, p 33.
39. Figure thirty nine sources: Christopher J. Blow"Airport terminals" Butterworth-Heinemann, the University of Michigan 1996, p 33.
40. Figure forty sources: "The Airport terminals", p 176.
41. Figure forty one sources: Christopher J. Blow "The Airport terminals” p.177.
42. Figure forty two sources: http://www.safeagate.com
43. Figure forty three sources: Walter Hart "The Airport passenger terminal", p 21.

Tables

1. Table one source: http://www.cyprus-weather.com/article_cyprus-average-temperatures-c, 13 Sep 4 pm 2009.