

MILLENNIUM TRICLINIUM

staging Figgjo meal experiences

Master Thesis by Tenna Doktor Olsen . Aalborg University . Department of Architecture & Design . 2008

TITLE PAGE

Title	Millennium Triclinium, <i>staging Figgjo meal experience</i>
Theme	<i>Architecture's role in the meal experience</i> Long dissertation programme 2007/2008, Master Thesis, Aalborg University, Department of Architecture & Design, Specialisation in Architecture
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Project period	1.9.2007 – 4.6.2008
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Cooperative partners	Figgjo A/S, Stavanger, Norway. Contact; Constance Gaard Kristensen, Head of product development
Number of copies	7
Number of pages	331
Enclosed contents	Draft proposal - Drawing folder + CD no. 1 Site plan + sections, Showroom no. 2 Site plan + sections, Food Event no. 3 Plan, sections + interior, Furniture module no. 4 Construction section + assembly no. 5 -7 Constructional details no. 8 Time table

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PREFACE + ACKNOWLEDGEMENTS

How does architecture relate to food?

>> *With the notion of architecture as phenomena an understanding of architecture as a means of staging human being and framing the activities of our lives occurred, and the interrelation with food became a more and more important aspect of this architectural perspective.* <<

I asked myself this question for the first time during my freshman year at Aalborg University when I was introduced to the PhD; *Food and Architecture*, written by my supervisor: Anna Marie Fisker (Fisker 2003). As a novice within the architectural field I had no comprehension of the built environment concerning aspects beyond the physical shape of a building, but saw architecture merely as a matter of physical materials and spatial configuration. However, in time this rather narrow perspective on architecture widened. Leaning on the notion of art historian Lise Bek; *Room as frame and intention* (Bek & Oxvig 1999), where architecture is comprehended as *phenomena*, architecture became to me as much about the engagement in an understanding of society, life, and behaviour than pure physical matter. With the notion of architecture as phenomena, an understanding of our spatial surroundings as such occurred, revealing architecture to me as a means of staging human being and framing the activities of our lives. And especially the interrelation with food and the spatial framing of our meals became to me a more and more important aspect of this architectural perspective.

With the long dissertation programme an elaborate study on the interrelationship of food and architecture became possible. Working with the main theme; *staging Figgjo meal experiences*, the present thesis presents two superior parts; a theoretical study of architectures role in the meal experience, using methodologies from food evaluation and consumer science together with architectural theory as phenomenology and semiotics to increase the comprehension of spatial settings impact on public restaurant meals. A design part in continuation of the theoretical part formulate a specific offer on a design proposal implementing and answering how to provide future meal experiences for the Norwegian china company Figgjo, by use of an enhanced focus on the architectural settings surrounding the promotion of their newest chinaware.

The background for present approach has partly been motivated by a personal interest in the coherent field of architecture and gastronomy, and partly due to my participation in courses at Copenhagen University, Department of Food Science¹. But furthermore by the opportunity of a close collaboration with the company; Figgjo, who has expressed an interest in the theoretical investigation of architectures impact on the meal experience as a mean for further development within their china production for professional use. Figgjo has furthermore requested a specific design proposal for a future small-scale transportable showroom facility and eventful-eating environment, which intentionally uses architectural staging to emphasize the relation of design and food, and which simultaneously invites for promotion and exploration of their newest china and tableware.

Today Figgjo mainly attend grand trade fairs and exhibitions with large-scale billboards and showroom tables for a presentation of their different products. But Figgjo has a future desire to be able to exhibit their tableware in different exploratory ways, focussing more on the sensuous experience of the individual form as well as being able to serve different foods prepared by state-of-the-art chefs on their newest china. Chefs are intended to participate in specific cross-disciplinary food events around the world, introducing potential uses of the newest Figgjo products and culinary dishes from new creative and experimenting perspectives (see also Appendix A1, page 290). (Figgjo, January 2008)

The purpose of present report should therefore be seen as a theoretical and design specific discussion of, and a curiosity towards how the fields of architecture, china, and food are related. Investigating if architecture actively can be used to enhance the experience of china and eating, and if it is possible to initiate an architectural small-scale setting where food and sensuous experience form an utter whole, from the perspectives of plate, tableware, and embracing room?

It has furthermore throughout this thesis been chosen to use the name; *Millennium Triclinium*, as a synonym for the specific design proposal developed for Figgjo within the design part of this project. The word *Millennium Triclinium* represents the contemporary interpretation of the antique word; *Triclinium*², known as the formal dining room of the Roman Villas in the Antique Period. These dining rooms are considered the first architectural spaces directly assigned festive meal experiences, and during the Roman Era particularly wealthy personalities used the Triclinium to entertain important business partners and war associates with grandiose feasts. Here food and drinking were part of a spectacular show comprising performances of dancing, music, and poetry recitation in even more overwhelming settings of elaborate decoration of room, furniture and tableware, complex perspective scenes, and central paintings or mosaic floorings. (Strong 2002:28) With present project the Millennium Triclinium adopts the fused experience of the Roman dining room and offers an immediate sensuous experience merging the fields of architecture, china, and food, thus exploring how shape can be used to stage extraordinary experiences and emphasise social relations, through a focus on aesthetic detailing and design in scales of room, furniture, and tableware.

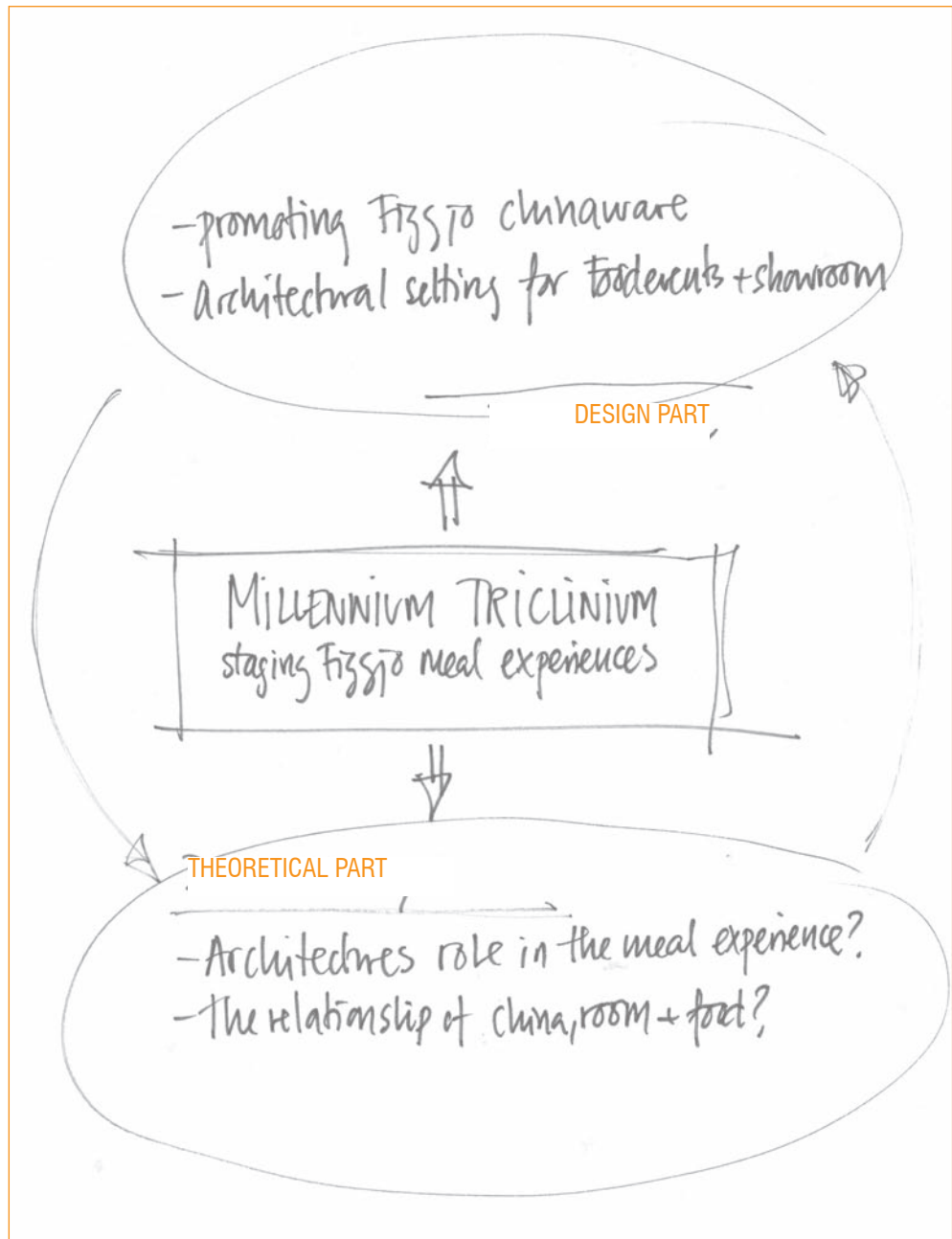
Throughout the report several references has been made to various time periods and important theoreticians. To make the understanding of their significance and inherited connection easier, a timetable has been developed and is provided in the enclosed drawing folder, seeking to outline the most important of the mentioned references. Furthermore detailed drawing material on the final design proposal can be found in the enclosed folder, as well as detailed calculations and endnotes can be found in the appendix in the end of the report (see Appendix A5, page 302 and A6, page 324).

Fig. 0.1

Project Outline

With the overall subject of developing an architectural setting promoting the future products of Figgjo the initiate idea for a long dissertation programme investigating the relationship of food, china, and architecture both theoretically as design-wise evolved.

>> Millennium Triclinium adopts the fused experience of the Roman dining room and offers an immediate sensuous experience, merging the fields of architecture and food. <<



Acknowledgements

Finally, I have during the development of present project continuously been allowed to follow the investigations on the Molecular Gastronomy Project at Copenhagen University, Department of Food Science, and have had the chance to be part of an ongoing collaboration with the Norwegian china company Figgjo in the development of a design proposal for the Millennium Triclinium. Being allowed to have Figgjo as a external sparing partner during the project has especially contributed to an enlightening and rewarding discussion about architectural staging of the meal experience; both in terms of interior and tableware, and has provided me with an insight in the processes, technology and development of china, as well as considerations about technology, materials, branding and providing specific eating experiences, which I am deeply grateful for and truly appreciate.



SUMMARY

The task of present report has been the development of a specific design proposal for an architectural setting; a *Millennium Triclinium*, staging the promotion and experience of the chinaware by Norwegian company Figgjo. As a means to develop this specific design proposal present project was initiatory divided into two major parts; a theoretical part and a design part. With the theoretical part I sought, on the basis of a study on the role of architecture relative to meal experiences, to formulate a theoretical design strategy towards the specific development of a design proposal in the design part. The design part as such in continuation of the theoretical part presents the development of an architectural setting, seeking to implement the knowledge and statements conducted throughout the theory into a specific proposal on how to stage the future promotion of Figgjo chinaware.

With the theoretical part I investigated the role of architecture in the meal experience through an outline on historical settings approaching the meal experience by use of architecture and design, thus examining both grand old European banquets dating back to the high rise of the Roman Period and forth to present times public restaurants. Those considerations were further elaborated with a theoretical study on meal aspects and as part of this, consumer and sensory science. Following this a more architectural theoretical study elaborated on the aspects of phenomenology and semiotics as means to understand how the perception of spatial settings – the room, furniture, and tableware impacts on the experience of the meal eaten. This theoretical study led me to the conclusion that architecture, with the notion of phenomena and the ability of framing or staging our being in the world, plays a crucial role in our perception of food. Architecture should therefore be carefully considered when dealing with food-related experiences. Furthermore the theoretical study and especially the specific case study on the two “epochal dinners” Villa Hadrian and Madeleines Madteater led to an understanding of architecture as sensuous staging of meal experiences, through careful orchestrations in scales of both landscape, building, room, furniture, tableware, and food. Hence, emphasising the final design strategy and its seven design aspects; movement, touch, scent, sound, sight, taste, and surprise when approaching the development of a design proposal.

With the design part the five aspects of the theoretical design strategy was implemented in a concrete proposal for a Millennium Triclinium; an architectural setting seeking to combine the use of the showroom facility with an eventful eating environment to create attention around the promotion of the newest products of Figgjo chinaware. Furthermore the architectural setting sought to initiate creative cross-



disciplinary collaborations between chefs, diners, and designers in the phases of designing and developing new Figgjo tableware by use of the performative and explorative architectural settings around the act of showing china, as well as preparing/eating food. This concept resulted in a specific proposal for a small-scale interior architectural setting, taking the shape of a deployable furniture structure configured into an expressive form embracing the promotion and experience of the china. Further luring new experiences and potentially inviting for new use and different perspectives on china and Figgjo tableware.

The proposal takes its point of departure in the geometrical shape of a sphere, creating a room within the overall room; allowing the setting to travel around different context environments, always addressing all sides with its round shape. Though, still like the forest hiding parts of its content, thus luring, tempting, and inviting for further exploration.

On the outside the setting is strongly characterised by the fragmented, hard surfaces, like the rocks or mountains of Norway, and the surface pattern occurring with the unfolding of the structure adding a sensuous play of light and shadow to the presentation of the china. On the inside the structure unfolds an interior landscape, having a thick felt carpet growing from the floor into furniture, seating, niches, tables, walls and ceiling; presenting the china in an almost sculptural and abstract manner, as well as inviting for touch and bodily movement in the experience of the architecture, tableware, and food.

INTRODUCTION . FOOD + ARCHITECTURE

In 1981 and 2000 the Italian design company; Alessi, invited several famous artists, designers and architects to participate in an experimental research project on tableware under the working title: *Tea and Coffee Piazzas* and *Tea and Coffee Towers*. The invitation requested unique design proposals for coffee services comprising a tea and coffee pot, sugar bowl, and creamer atop a tray. The proposals were free of ordinary mass production limits and allowed for sophisticated industrial technologies and handicraft processes. One demand only ruled; it all had to be produced mainly in silverware. (Alessi 1983:3; Alessi 1998:38; Alessi 2003)

With the many different proposals developed, the ordinary perception of tableware and archetypes within coffee and tea vessels was highly challenged. Especially with the contemporary Tower-series, shapes morphed into scale-less structures representing almost landscape-like settings and grand buildings of puzzling forms and colours endeavouring the body with their mystique scale and insinuating an inherited relationship of architecture, tableware, and food.

However, already in 1983 the Piazza-series with their general translation into “heavy” buildings rather than “light” metalwork, endeavoured this morphology of tableware into micro-architecture and choked spectators around the world. With his proposal for the composition of tea and coffee service pictured in a grand post-modern glass building with a flag and a clock, particularly the Italian architect Aldo Rossi brought the imaginary world of architecture and gastronomy into life (see figure 0.2). (Alessi 1983:17-19, 56-58; Alessi 1998:39) Rossi's contribution to the project furthermore initiated the proposals for the tableware; *La Conica* (1984), *Il Cornico* (1986) and *La Cupola* (1989), which perhaps more playfully challenges the perception of city, plaza, and building, as well as kitchenware than the piazza proposal.

One of his sketches stands especially clear to me. It is a crayon drawing of a grand coffee pot; the *La Cupola*, pictured among ordinary town buildings protruding high in the sky. With its pointy tip, unusual proportions, combined and coloured in strong opposing hues to bring the identity forth of each part, it stands there on the plaza as a timeless symbol of splendid shape and material use. Perhaps it even stops time, with its strict geometrical and universal language? (Jencks 2002:117; Alessi 1998:52) Not only does this object work for making coffee, but furthermore tells us hidden secrets of scale-relations between city, house, interior, tableware, and food. It states a picture and allures a world, where structures, shapes, and forms not able to meet in reality suddenly blend. And most importantly, it tells to me of a world where

>> *The ordinary perception of tableware and archetypes within coffee and tea vessels was highly challenged... shapes morphed into scale-less structures representing almost landscape-like settings and grand buildings of puzzling forms and colours; endeavouring the body with their mystique scale.* <<

Fig. 0.2
Tea and Coffee Towers (1983)
Proposal for Tea and Coffee
Piazza by Aldo Rossi.
(Alessi 1983:61)

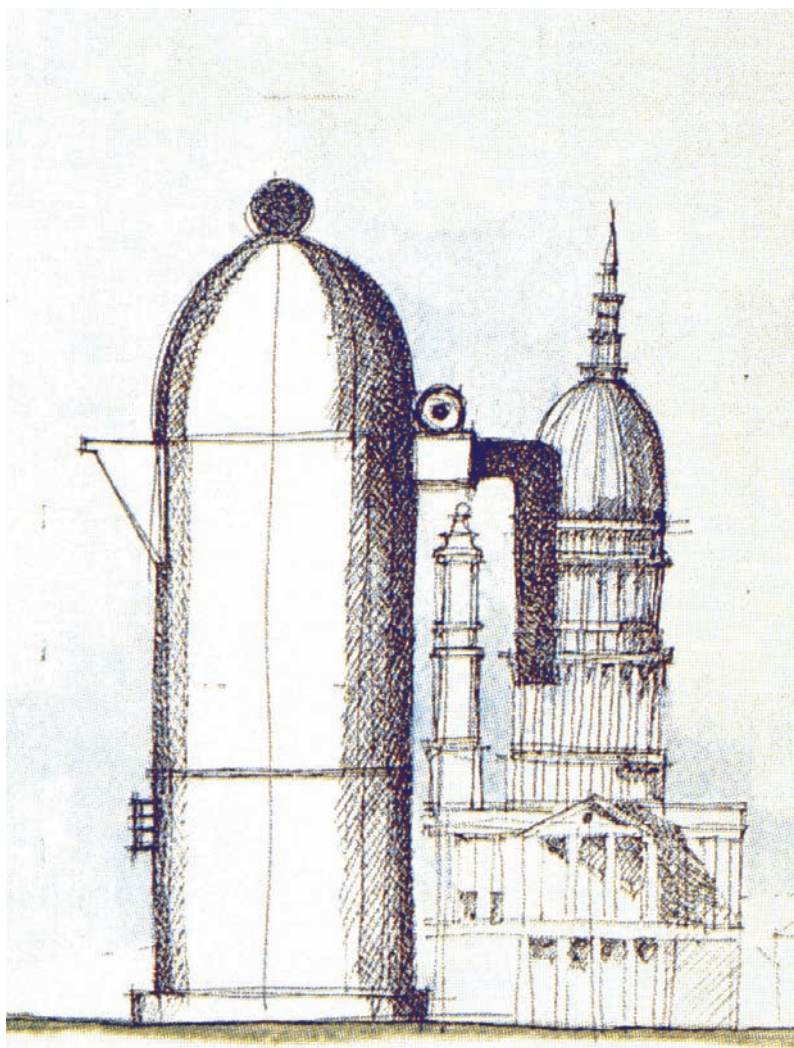


buildings, tableware, and coffee pots, as aesthetic shapes impact on our comprehension of the world and affect our lives and memories through their aesthetic appearance.

This is where I will begin.

Begin in the imaginary world, where the mind creates rooms and spaces. Where china, tableware, food, and room blend. And where imagination brings to life what do not even exists.

A trilling feeling of being able to see and move in spaces not even there, touching surfaces, feeling warmth and cold, sensing colours, hearing sounds, smelling and tasting; surrounded by architectonic structures triggering primordial instincts of being-in and relating to the world.



GREEN ROSE BY KPM

It was the 24th of December.

Christmas Eve. The last great feast of the year. The evening of tradition and memory for young as for old.

I still remember the joyful feeling scattering all over my body, filling every vein with comforting warmth dispersing as we arrived. It was dark outside. Cold, quiet and crystal clear with sparkling stars above my head. A firerish light fled from the grandiose windows facing the small country yard and the garden of roses and apple trees. Inside the steam from the preparations of the Christmas dinner filled the rooms, and as I entered the narrow hallway a sweet odour of red cabbage, wine, vanilla, cinnamon, and oranges embraced me. Eager shadows of persons running back and forth the kitchen and dining room, carefully preparing the settings of this magnificent event; - Every thing had to be perfect, every thing had to be exact as it used to, and nothing was left to carelessness. Each spoon and dish had its own purpose and strict place in the grand arrangement of the forthcoming show and preparations had been made for weeks, making sure that nothing was missing and everything ready to perform.

The dining room; the grandiose setting around the entire feast was prettier than ever and dressed in its finest. The soft silky wallpaper in golden and yellow colours, woven tapestries of forest scenery with deer and pheasants, the huge round table standing in the middle, and a darkish yellow oil-lamp hanging from the ceiling in brass-chains shining above the marvellous city of faience china, crystal glass, and silverware. All of it had occasionally been unleashed from the dark cupboard in the corner of the room, now neatly aligned and carefully split by crochet mats, small piles of plates with a shimmering silver brim, and subtle green and grey roses on the delicate creamy shiny surface faced the chairs around the table; emerging a never-ending labyrinth landscape on the white tablecloth. Each dish had its own part perfectly shaped for its use, together forming a complete set counting varying sizes of plates,

Fig. 0.3

La Cupola (1989)

Crayon drawing by Aldo Rossi of a grand coffee pot pictured among town buildings and churches, standing as a timeless symbol on scale-relations between architecture, tableware and food. (Alessi 1998:52)

bowls, pots, ewers, cups, basins, saucers, cigarette and toothpick holders, jugs, ashtrays, candlesticks, soup tureens, salt and pepper castors, and the tiny sugar basin proudly standing by the coffee pot with its silver spoon as a weapon ready to defend any intruders of the peace. Accompanying this splendid city of voluminous structures in all shapes and sizes where the slim shiny green crystal glasses, being the towers of the plaza somehow making an instinct impression strictly aligned along the side of the plates. - Perhaps it was because of the sparkling and bubbling yellow or red drink constantly poured in the glasses, but I clearly remember the poetic play of light and colour and the shadows created on the plate and the tablecloth from the jagged carvings in the glass. Little shadows of willow leaves joyfully crawled across my plate, inviting the green and grey roses to play, teasing my eyes and awakening the food.

As I begin to eat the appearance of the tableware further transforms, the blank shimmering surface raising the food towards me, invites me in and simultaneously carefully with the wide, slightly inclined brim safely allows me to shove around the food without being afraid that the crowd of potatoes, sauce, meat, and vegetables will crawl of the surface, escaping the grand scenery.

For it is a scenery, the best ever; like a music play or my favourite story. The humming sound of voices around the table and the grand dark shadows of bodies aligned behind the marvellous landscape of sparkling china, and colourful food decorative and ornamentally arranged at the surfaces and cavities formed with the curves of the landscape.

Small circular platforms, grand horizontal piazzas, long pathways, slim perfectly shaped vertical towers in varying sizes; the centre piece, the town hall, the small vendor, and the urge to touch them all, feel the cold or heated surface between the fingers endeavouring the space, as each dish is send

around the table. Amazement and astonishment on the weightless feeling of the small cup, and its tiny ear gently curling around my finger merely touching me at all, and the twisted edge of the cup perfectly fitting the curves of my lips, slowly taking me towards the point of no return, where the warm liquid moves through the cup and touches my tongue for the first time, exploding in a sensational mix of taste, smell and touch; the sweet, warm, tea, the lemon odour, the hard slightly rough surface of the silver brim on the cup, the sounds of silverware on the plates, the clinging of the crystal glasses, the teeth biting the fork as it feeds you with yet a vegetable, and the relaxed feeling of warmth emerging in your body as the warmth drink fills you up from inside-out, bringing satisfaction and joy, yet urging for more.

But the clock strikes noon, dark rests upon the table as the candles are blown out and the china goes to sleep back in the closet.

Every vein of me, though, remembers the sensations of the grand feast and in my mind I can go back; go back to the grandiose landscape of the table, the sounds of the china, the cheerful voices, the scent of lemon and the warmth feeling in my body.



OBJECTIVE + FORMULATION OF PROBLEM

In the preface I questioned what the relationship between architecture, tableware, and food was? With the essay; *Green Rose by KPM*, I as a response to this question intuitively seek to describe the sensuous experience and inherited relationship of tableware, dining room, and food. This, in an attempt to clarify also how architecture on different levels and in different scales, in my opinion, impact on the meal experience. Furthermore the intention behind the essay is initiatory to suggest how architectural shape, through the sensuous use of texture, material, form, light, odour, and movement potentially enhances the perception of the food eaten and binds the act of eating with more social and primordial levels of understanding or comprehending our being-in-the-world. The motivation with this approach has been the utilization of the intuitive comprehension of architecture's role in the meal experience to encircle a further understanding on architectural staging as a means to accentuate the experience of the tableware of Figgjo in the final design proposal.

Within the main theme of; *staging the meal experience*, my overall motivation has therefore been to formulate a theoretical design strategy for the development of an architectural setting, focussing on the room as a frame around the food unfolding a social context and state of being. And as part of this investigate how interior design and careful considerations on architectural detailing potentially can make room for better food experiences, guided by the following problem formulation:

How can present project with a focus on architecture as sensuous staging develop a design proposal for a small-scale setting encompassing showroom and eating facilities giving attention to the future china business of Figgjo?

To unfold this problem, the following theoretical study takes its starting point in the relationship between food, dining room, china, and diner, and the examination of historical meal experiences in an European context; investigating the staging of the public meal situation through times. This approach has been chosen to be able to elaborately engage in the thesis regarding architecture as staging of meal experiences and chinaware, for the development of an architectural setting for Figgjo. The initiate historical study is primarily based on the book; *Feast*, by Roy Strong (2002), presenting an impressive outline on the historical development within European Banquets from the perspective of tableware, furniture, and food. Furthermore additional historic investigations have been made on the background of respectively Carolyn Korsmeyer (1999); *Making Sense of Taste*, and Lise Hannestad (1979); *Food and Drinking in the Antique Rome*. In continuation of the historical outline on the public European meals and restaurants, I have chosen to elaborate on the role of architecture

Fig. 0.4

>> *My goal is to develop a concrete design proposal for a transportable, architectural setting combining showroom facility and eating environment; a Millennium Triclinium, challenging the ordinary perception of china and tableware in relation to room and food, through architecture as staging.* <<



THE RESTAURANT

+



THE SHOWROOM

MILLENNIUM TRICLINIUM !?

in the meal experience by engaging in the fields of Food and Consumer Science, relative to the more architectural-philosophical fields of phenomenology and semiotics. My motivation for this two-sided perspective has primarily been the wish of studying the subject of the relationship of food and architecture from both a food scientific point of view and architectural point of view. And examining how architecture possibly in its nature of room, furniture, and tableware impacts on our comprehension of the food. This relative to the general understanding of meal aspects not including the physical room, presently prevailing with some theories within Food Science. The higher intention behind the cross-disciplinary study and my goal of the theoretical part as such has been to determine some general aspects defining the experience of food relative to architecture and design. Hence, being able to formulate and state a design strategy partly outlining specific design parameters for a concrete design proposal for Figgjo, but also outlining the aspects of architecture interrelating with food through meal experiences, and potentially make room for new reflections within the contemporary architectural theoretical field.

Finally as mentioned in the preface the motivation behind present project was partly a personal interest in the relationship of food and architecture, but also the opportunity to develop a specific design proposal for an architectural setting seeking to combine thoughts on food, china, and architecture for the company Figgjo.

This possibility triggered the idea of a cross-disciplinary theoretical approach investigating the relationship of meal experiences and architecture, and formed the background of a long dissertation programme uniting theory and design into a specific proposal combining perspectives on food and architecture. The design of a Millennium Triclinium is beside the wish of a theoretical background, however, further preconditioned by a number of more functional design premises put forth by Figgjo in the promotion of their china. And with the challenge of having Figgjo as sparring partner and figurative client, those functional considerations are important to engage in, and are subjects who potentially could be motivated through a profound understanding of Figgjo's profile and contemporary design strategy.

An analysis of the Figgjo company have therefore initially been conducted with the purpose of obtaining an elaborate understanding of Figgjo and their products as means to further clarify needs and demands for an architectural setting and design strategy combining showroom and eventful eating environment. Part of the analysis is investigating and potentially using Figgjo's approach towards china design in correlation with the theoretical knowledge later obtained in the theoretical part of the present thesis to develop the actual design proposal. The analysis can be read in the Appendix A1, page 290.

MILLENNIUM TRICLINIUM !?

promoting Fizzio china

- Architectures role in the meal experience?
- the relation of china, room + food?

HISTORY REVIEW

- Architectural staging of meals
- from banquets to restaurants
 - relation food, china, room, building?

MEAL EXPERIENCE

- perception of food?
- Sensory + consumer science

EXPERIENCING ARCHITECTURE

- perception of space?
- architectural theory

CASE STUDY

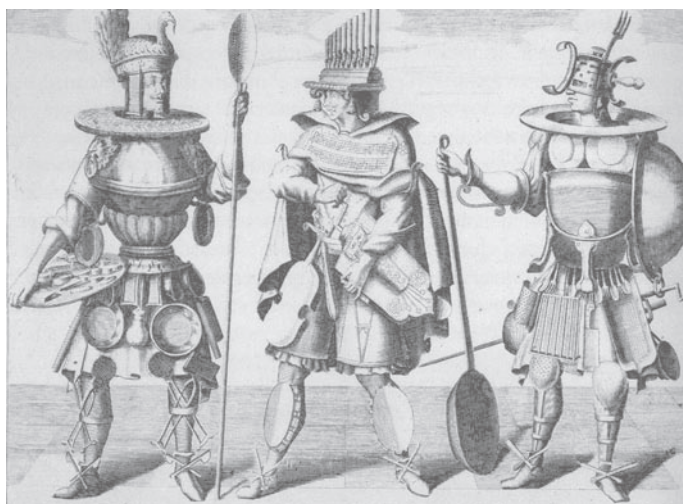
Villa Hadrian, 116 AD
MADRID, 2007 AD

THEORETICAL PART

Investigating architectures role in the meal experience

“The dining room is a theatre wherein the kitchen serves as the wings and the table as the stage. This theatre requires equipment, this stage needs a décor, this kitchen needs a plot.”

By Chatillon-Plesis 1984
(Kirshenblatt-Gimblett, 2007:75)



Chapter 1
THE THEATRICAL MEAL

PLATE, TABLE + DINING ROOM

When approaching the subject of architectures role in meal experiences and seeking to understand which aspects potentially outlines a connection between architecture, tableware, and food, neither the historical use of spatial settings and interior décor during festive feasts in the aristocratic Europe, nor the contemporary research fields within food science and food evaluation can in my opinion be ignored. It has therefore with present theoretical part been of great importance not just to study the relationship of architecture, china, and food. But has furthermore, with the encircling of architectures role in the meal experience and the subject of architecture as theatrical staging, been the purpose to be able to make a statement towards the architectural field in general, and how to approach the development of future food-related environments. As so it is my intention with present project to introduce a new level of detail within the design of public dining rooms, and in this way broaden the architectural approach towards the contents of the contemporary eating environments, which encompasses both a sociologic-, experience-related and socio-economic incentive. Present chapter will therefore initially endeavour the historical more architectural related perspectives on architectures role in the meal experience, as well as investigate the contemporary observations made on the aspects impacting on the meal experience within the food scientific field. This approach has been chosen as means to fully understand the following theoretical study of architecture as staging of meal experiences and the aspects naturally involved in the comprehension of the meal.

As especially the historical outline encompasses a wide range of time specific information, I have chosen to formulate a time line seeking to ease the understanding of the different period's mutual significances. This is located in the enclosed drawing folder.

Festive feasts; staging the meal

During history the relationship of spatial settings, interior design, tableware, and arrangement and serving of food have especially been accentuated with the grand banquets and grandiose meals held among the higher European aristocracy. In the antique period this multi-sensuous approach fusing architecture, design, and food was seen with the dinners held by the Roman emperors in the Triclinium, as referred to in the preface. The Triclinium at Villa Hadrian near Tivoli in Rome, Italy, is a magnificent example of this dating back to 118 AD, where a significant composition comprising landscape, water fountains, choreographed waterworks, and built-in furniture constitute a grand dining hall. Besides the specific use of interior décor, furniture, and landscape, means of providing the dining guests with a sublime dinner experience were achieved by recitation, music, and dance performances as well as serving the food in elaborate theatrical

>> Besides the specific use of interior décor, furniture, and landscape, means of providing the dining guests with a sublime dinner experience were achieved by recitation, music and dance performances as well as serving the food in elaborate theatrical ways during eating. <<

>> *Examples show great architectural displays, where china, tableware, crystal glass, and sugar sculptures were exhibited on grand tables and built-in wall shelves, making the tableware forming the actual spatial settings around the festive meals.* <<

manners during eating. (Strong 2002:28-31) This focus on the multi-sensuous approach towards eating, merging the food experience with architecture and performance became the inspiration for grand feasts during the medieval times, the renaissance, and the period of enlightenment. Here the architectural staging of food with spectacular form and theatrical performances and events according to historian Roy Strong not only provided the guest with an spectacular total experience, but further communicated prosperity and social status by means of the overwhelming amount of silverware, crystal, and china used during the feasts.

Examples show great architectural displays, where china, tableware, crystal glass, and sugar sculptures were exhibited on grand tables and built-in wall shelves, making the tableware forming the actual spatial settings and architectural frames around the festive meals (see figure 1.4). Furthermore grand banquets were held as actual theatre plays, performed within a specific theme, guests dressed up in costumes, actors serving the food, and spatial settings developed as actual theatre settings featuring a stage, specific furniture and tableware, spectators, music, and dialog during the feasts (see figure 1.2). (Strong 2002:189) The interrelationship of food and architectural settings through room, furniture, and tableware as such apparently dates far back. And with the sensuous staging of the meal through the physical settings and amusements for all the senses, food was made into something more than mere nutrition. Food was seen as an event and an experience serving higher means than satiety. Perhaps even sometimes the food was more focused on visual aesthetics and appearance than gustatory taste, and the operating principle were "for show". Food was to be seen, touched, inhaled, ingested, absorbed, and embodied – not only as substance but also as meaning. (Kirshenblatt-Gimblett 2007:2, 3)

With the grandiose architectural settings and delicate tableware the historic banquets made the power of the host tangible and sensuous, and through visual effects, rarity of ingredients, opulence, and sequences of performance events, the banquets further emphasised cuisine as connotative signs and made a social world edible through spatial and aesthetic form. As so architectural staging via furniture, décor, tableware, and food arrangements reflects the contemporary time and society it is a part of, and in a way define its own archetypes within grand feasts for each historical period; linking together time, place, culture, food, and architecture.

If we go back in history, back to the period of Enlightenment and the Industrialisation, the perception of grand banquets and the meal as a theatrical event relative to the times of the Antique period altered. Previously the meal course had been focused around the serving method; *service à la Française*³, which was a style arranging all the

YEAR 116

STAGING

YEAR 1450

THEATRE



Fig. 1.1

The Triclinium

With the Roman Triclinium, food was eaten half reclining on arrangements of three couches (Lecti) around a small table. Each Lecti encompassed three persons as such purposely forming smaller societies of nine persons; differentiating in social status and authority. (Strong 2002:29)



Fig. 1.2

The feast as a theatre

During the renaissance the dinner evolved as a theatre play, encompassing architectural settings, a stage, costume, music, and food arrangements composed within a specific theme. Here the architectural settings both in terms of room, furniture, and tableware became the means of staging the entire narrative. (Strong 2002:189)

HISTORY OUTLINE

YEAR 1500

DISPLAY

YEAR 1650

INTERIOR LANDSCAPE

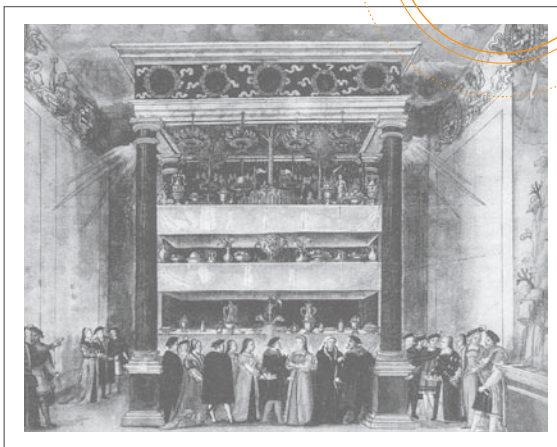


Fig. 1.3

Sugar Banquet

Display of china, silverware, and sugar sculptures in a grand arrangement of three tables in turn being elevated from the ceiling, giving a magnificent performance with music, light reflections and thunder each time a new display is elevated. (Strong 2002:196)



Fig. 1.4

Staging of the meal

Food at display in a strict arrangement of plates and dishes following the style of service à la Française and tableware as interior décor on the walls at the right. (Sabban & Serventi 1998:117)

food of the entire feast in one dining hall on several hundred plates in grand tables before seated; making the food and the tableware the spectacular interior decoration and staging of the entire event. However, new times led to new serving methods as; *service á la Russe*⁴ and *service a l'assiette*⁵. Service á la Russe was contrary the huge landscapes of plates and food on the grand tables dating back to the Renaissance, grand dishes with food served to guest by servants; leaving the tablecloth empty of food decoration and the servants responsible for the arrangement of the food on each plate. As a result the interior decorations became more focused around the heavy battery of tableware needed at the tables, the chandeliers and flower decorations, whereas the food arrangement altered to the individual grand dishes or plates. (Strong 2002:229,233,237) With *service a l'assiette* the downscale of food arrangements was further emphasised, as the food previously arranged on grand dishes now was arranged on individual plates for each guest, served directly from the kitchen and arranged by the chefs themselves, as known today on most restaurants. (Franck 2002:61-62)

With these alterations in serving and presentation manners of the food from the past banquets into restaurant plate servings, the chefs became more and more focused around the aesthetic appearance of the plates and tableware instead of grand almost architectural food-sculptures embellishing the entire interior décor. Furthermore the close sensuous scenography which bonded the food with architectural settings, tableware, and theatrical play as seen during history was slowly dissolved, as the different artistic fields during the period of Enlightenment got acknowledged as individual sense-specific art forms in each of their individual dedicated spaces. The dancing turned into ballets, the singing into opera, and the acting and recitation turned into theatre; leaving the dining room only for eating. (Kirshenblatt-Gimblett 2007:1) As a result of this a greater attention was put towards the visual aesthetic in the dining room, and primarily towards the visual presentation of the food on the plate served to each guests.

>> *With the alterations in serving and presentation manners of the food from the past banquets into plate servings, the chefs became more and more focused around the aesthetic appearance of the plates and tableware instead of grand almost architectural food-sculptures embellishing the entire interior décor.* <<



Fig. 1.5

Private Dinner

With service á la Russe the focus was put on the decoration of the table with grand flower centre pieces, candles and a battery of different cutlery, glasses and side dishes; each for its specific use during the different servings.
(Glanville & Young 2002:51)

The restaurant; providing a social service

A grand industry of tableware, cutlery and glass developed with the alterations in meal servings and dining room decorations, and the decorative importance was now put on the setting of the tables, forming grand landscapes of china, silver plates, crystal, and chandeliers. This was further emphasised and perhaps strengthened during the 18th century with the first restaurants occurring in Paris in 1789⁶ (Strong 2002:287). Here chefs break with former standards making finer cooking and exclusive good meals, previously available only for the aristocracy and their private guests, available for everyone willing to pay. These restaurants differed from previous time's public eating places in their offer of choice in food, a menu listed with prices, flexible mealtimes and individual tables presenting distinctive décors; fragile china, plentiful mirrors, landscape paintings, and candlelit tables imitating the private dining room of the wealthier societal classes⁷. At this level and scale of architecture, the kinaesthetic pleasure of a heavy silver fork, or a fine crystal glass, a well-designed cup or a gracious plate brought aesthetic pleasures as well as communicated sufficient social status among the restaurant diners. (Strong 2002:288; Franck 2002:7)

An example of the voluminous and spectacular interior appearing with the French upcoming restaurants is the still running establishments; *Vagenende* and *Julien*, both located in Paris, France established during the 19th century. (www.vagenende.fr; www.julienparis.com) With more than almost two hundred years of experience in fine dining, the two restaurants with their magnificent and colourful Art Nouveau interior, still today stands as stunning examples of staging meal experiences with a dramatic, poetical and bodily sensuous experience. The décor expresses a unique precision and almost dreamlike interior landscape with its splendour in sumptuous materials; graceful wooden structures, detailed carvings and engravings, use of mirrors, and coloured filigree glass in slim metal structures, suggesting a highly visual appearance of sound and rhythm through the careful articulation and visual movement of whip-lashed curves and lines. Through an insight in contemporary technical skills and material use, the architectural style furthermore utilises both structure and technique to form the expressive and sensuous style, endeavouring the body on tactile and visual levels of interior décor, furniture, and tableware (see figure 1.6 and 1.7, page 34).

Though, food was removed from the theatre and theatre was removed from the dining room during the Enlightenment and the period Industrialization, the table and the stage in the public eating facilities as such continued to have a shared history; restaurants became not only places for public meals but also places of display and spectacles with interior décor and tableware as seen with *Vagenende* and *Julien*. And today gastronomy and restaurant settings are in my opinion reliving yet another alteration towards the theatrical performances.



Fig. 1.6

Restaurant Vagenende

Coloured leaded glass structures create a soft diffuse light, providing a sensuous and poetic atmosphere around the food. (www.vagenende.fr)



Fig. 1.7

Restaurant Vagenende

The thorough detailing and whip-lashed decor creates a rich and highly tactile setting, both in terms of interior decoration, tableware or cutlery. (www.vagenende.fr)

Contemporary restaurants; food as an event

Eating and drinking are natural preconditions for human survival and constitute a regular ingredient in our daily lives. The spaces and domains of food are as such all around us and food-related activities occur in several places and shapes both private as public, both indoor as out. Perhaps it is in the design of a restaurant, a café or the market place - perhaps it is the in grocery store or the food festival? With the growing globalisation and foods available from all over the world via the internet and in large grocery stores, the food options are furthermore more infinite than ever. As a result of this, public restaurants, stores, and food manufactures are competing for consumer attention towards their specific products and services, and additional aspects than nutritional needs and gustatory taste must lure these consumer choices. Food offerings become as such part of cultural offerings and the individual food choices become signs of ones identity and ways of communicating social affiliation. (Jacobsen 2007; Holm 2003)

Even plans to regenerate sectors of urban economy has to a greater extend been concentrated around using food as means to generate cultural experiences, and the opening of new cafes, restaurants, and especially luxurious food shops in old harbour- and factory neighbourhoods are used to generate new user segments in worn-out city areas by the means of interrelating spectacular architectural forms with food. (Horwitz & Singley, 2004:15; Franck 2005:2) This approach results in a growing attention on food as part of the experience economy, providing specific consumer experiences in line with- or even imitating the theatrical performances of historical banquets and festive meals. Enrolling the meal and food products in cultural, performative experiences as such become means of creating an extra emotional layer or narrative to the nutritional value of the food, thus opening up towards a more personal and individual engagement in the identity of each consumer.

Professor in performance studies Barbara Kirshenblatt-Gimblett further elaborates on the theatrical approach towards food in contemporary restaurants; directly relating architecture and gastronomy in her article; *Making sense of food in performance* (Kirshenblatt-Gimblett 2007). Here she advocates that the intersection of food and architecture finds its impression in the performative spaces that the preparation and consumption of a meal imply. She claims;

“When doing and behaving are displayed, when participants are invited to exercise discernment and appreciation, food events move towards the theatrical, a convergence of taste as a sensory experience and taste as an aesthetic faculty...the restaurant emerges as the dedicated space of food theatre” (Kirshenblatt-Gimblett 2007:5,11)

As such she relates the distinctive experience of food with the experience of architecture and design through the interpretation of taste, and suggest that the joined feeling and memory of the two fields, are one of the most sublime experiences of our world; the joint venture of body and mind. Furthermore Kirchenblatt-Gimblett argues, in line with the perspectives put forth in the previous section, that with the proliferation of free-lance cooks, the professionalising of chefs, and the emergence of public restaurants, food becomes part of a different mode of sociality. A mode that is more intimate and better suited to focused attention on the nuances of taste according to consumers. In their eager to attract customers, she argues that contemporary restaurants become overtly theatrical in their staging of another time and place. Through ambient architectural settings restaurateurs seek to provide a script for social encounters; involving food, drink, conversation, music, and perhaps even dancing?

An extreme contemporary example of this is in my opinion one of the most controversial initiatives within the Danish culinary environment today, the restaurant; *Madeleines Madteater* (Madeleines Food Theatre, red.), which explores and challenges the meal experience by rejecting traditional restaurant manners. Instead Madeleines present the meal as a thoroughly planned theatre play, using spatial settings, actors, media, light, and sound to extend the ordinary understanding and perception of the food. This is further emphasised by the restaurant being reviewed in line with concerts, operas and theatre plays in the newspapers, as well as one has to buy a ticket on "BilletNET" (online ticket sale for concerts, red.) to be able to eat there. (Lorenzen, 2005:34-37)

>> *Madeleines emphasizes the profound interest in expanding the meal experience beyond the mere excitement of the senses, instead endeavouring an aesthetic overall body and mind-related feeling, taking their point of departure in the remembrance of times past.* <<

Madeleines is run by the chef; Mette Sia Martinussen, and the production designer; Nikolaj Danielsen, and is conceptually based on the close interdisciplinary collaboration between; an anthropologist, a sociologist, a sensory analyst, a brain researcher, a psychotherapist, a performance artist, a sculptor, and a musician. (Lorenzen, 2005:35) Madeleines emphasises the profound interest in expanding the meal experience beyond the mere excitement of the senses, instead endeavouring an aesthetic overall body and mind-related feeling, taking their point of departure in the remembrance of times past, as the French writer Marcel Proust does with his story on; *Swans Way*, and the Madeleine cake evoking nostalgic reminiscences of a past childhood home and town⁸ (see Appendix A4, page 298). In Madeleines this poetic moment is expressed through the entire meal course and servings of the food in theatrical manners, involving staging of room, furniture, movement, and perhaps most importantly an overall story told with the performance of rituals and spatial symbols communicated throughout the whole act of eating. (Danielsen 2007) With Madeleines the food is definitely not just food in a nutritious manner, but becomes a spectacular event and performance to such an extreme that it actually looses the freedom of choice of food and time of eating, provided with the original restaurants inaugurated in Paris during the 1780ies.

In a smaller scale and less theatrical manner, Kirchenblatt-Gimblett emphasises that the staging of the meal deliberately occurs even in more humble eating facilities as the pizzeria presenting the making of the pizza, as the dough is twirled around. Or the seafood restaurants having fish and shellfish swimming around grand tanks, in which case it is the food itself that becomes the performers. (Kirchenblatt-Gimblett 2007:5) Restaurants are as such generally fascinating in the public service as eating facilities for numerous individual parties simultaneously, and when everything is working smoothly, Kirchenblatt-Gimblett advocates that the kitchen can be understood as an ensemble performing a scenario; a three or four act dinner for each guest. - Each table with its own performance, complete with programme notes or menus. To the staff and the spectators the whole evening as such has a rhythm, a course of events, and a dramatic structure or choreography. The obsession with the staging of the food reflects the interest of a public that is captivated by the theatricality of the dining experience, by designer restaurants where presentation is as important as the food. People demand "show for the money", and because of the way it engages the senses, food offers particular challenges and opportunities for artists, both those interested in spectacular theatrical effects, and those working in the line between art and life according to Kirchenblatt-Gimblett. (Kirchenblatt-Gimblett 2007:10, 14)

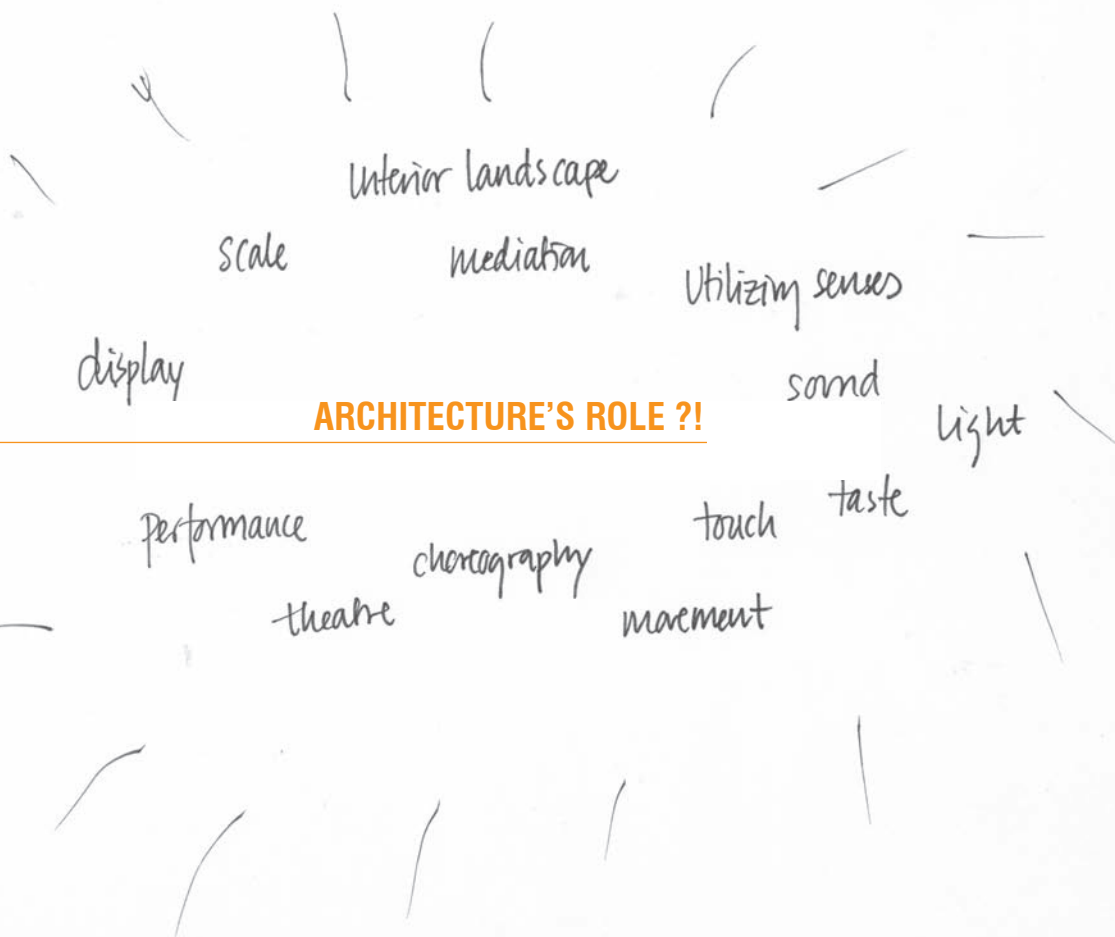
But how does the architecture impact on this experience, being the physical frames embracing it all? And what does this mean for the perception of food? Can architectural space be too dominating and over articulated, relative to the good meal experience, - and which role should architectural staging then play in the meal experience?



Fig. 1.8

The restaurant as a theatre

Comprehending architecture as phenomena, space frames the settings of the meal and endeavours the perception of food in scales of room, furniture, tableware and food. This is especially seen with the careful staging of the restaurant meal as a theatre play, as seen at Madeleines Madteater. The above picture shows the latest performance "ca. Cirkus" conducted at the restaurant in April 2008. (Politiken, 15.4.2008)



THE ROLE OF ARCHITECTURE?

Seeking an understanding prior to the question of the role of architecture, Professor of architecture, Andrew Ballantyne, raises an intriguing question with the title of his book; *What is architecture?* (Ballantyne 2002: frontpage) - Perhaps it is an impossible question to ever fully understand or answer, but still I think every architect should be obligated to try. And as referred to in the preface, I base the superior subject of architecture's role in the meal experience and the inherited relationship of food and architecture on the understanding of architecture as *phenomena*. This perspective of architecture as phenomena and not just physical matter leans on the perception of *space as frame and intention* put forward by art historian Lise Bek in her book; *Rumanalyser* (Space analyses, red.)(Bek 1999). Ballantyne argues;

“Architecture is always more than building, representing as it does a folding together of buildings and culture, so that the buildings come to have meaning as they are caught up in a way of life – architecture is best appreciated as part of an art of living.”(Ballantyne, 2002:1)

In relation to this statement put forward by Ballantyne Bek elaborates further on the notion of architecture as phenomena and argues that architecture is not just about function as spatial organizer and separation of different zones, but as much about the sensual experience of the room and the inherited socio-cultural aspects communicated through for instance the interior décor (Bek & Oxvig 1999:12). With the notion of architecture as frame and intention, here described as *architectural staging*, architecture directly relates to our sense of being-in-the-world, and with this Bek expresses what Ballantyne only vaguely hints with the notion of architecture as an art of living. Furthermore, with this perspective of architecture as phenomena Bek imparts to me an understanding of architectural quality as being something beyond the matter of functional or technical practice. Instead she makes architecture a complex matter of function, construction, artistic form, and a personal intention behind the room, causing an immediate social context relating space, user, and architect to each other.

I remember, in my first year at University of Aalborg, Professor and architect Claus Bonderup (2002) gave a lecture on aesthetics and architecture. Here he showed a picture of an old, large workshop area furnished with long rows of tables and benches, featuring all different kinds of people eating. The farmer next to the business guy, the children next to the old woman, and the rich next to the poor; all eating the same stew served from a grand old pot. In relation to this he advocated that architecture was essential because it is the frames of our lives. Buildings were not artistic objects resting in their own aestheticism, but had a golden purpose of framing or staging the histories and social interrelations of human interaction and movement,

>> *With the notion of architecture as frame and intention; here described as architectural staging, architecture directly relates to our sense of being-in-the-world.*
<<

>> *It is in this act; the sensory experience and cognitive understanding of our surroundings and physical shape, that the architecture, the china, and the food not only becomes-, but also defines the frames of our lives.* <<

just as Ballantyne and Bek argue in the quote in previous section. At that specific time I did not quite understand the profound meaning of Bonderup's statement, but with the essay; *Green Rose by KPM*, I try to pinpoint exactly this relationship of architecture, design, and food. Because not only do we surround ourselves with designed objects as china and tableware, visit the homes of our grandparents, and nurture our bodies by eating, but we also experience and perceive the surrounding world. And it is in this act, the sensory experience and cognitive understanding of our surroundings and physical shape, that the architecture, the china, and the food not only become-, but also define the frames of our lives.

Therefore the restaurant is a room that is suffused with a constant atmosphere of suppressed excitement prior to, during the course of eating and after service. (Franck 2002:24) The meal experience is an immersion into taste, textures, smells, noises, memories, places, climates, people, behaviours, and ideas for as long as it takes to consume a plate or two, - or three. And the interior décor and architectural framing both in aspects of room, furniture, and tableware are sufficient means of this experience. The table and the tableware have an ability to unfold a micro-cosmos of their own around you, considering table or plate as a piece of architecture in themselves. Simultaneously having an ability to immediate the relationship between architecture and diner as an expression of the spatial settings, as frames around our social lives and physical and mental well-being in the world.

Inspired by the comprehension of the inherited relationship between architecture and food, indicated by the perspectives of Ballantyne, Bek, and Bonderup with the notion of architecture as staging frame, the following study on the contemporary restaurant will engage in an understanding of how to approach the issue of architectural staging in a future small-scale setting for Figgjo. This by addressing some of the best examples, in my opinion, of European restaurant interior during history, and with the higher purpose of detecting important aspects of architectural quality in the staging of the meal experience.

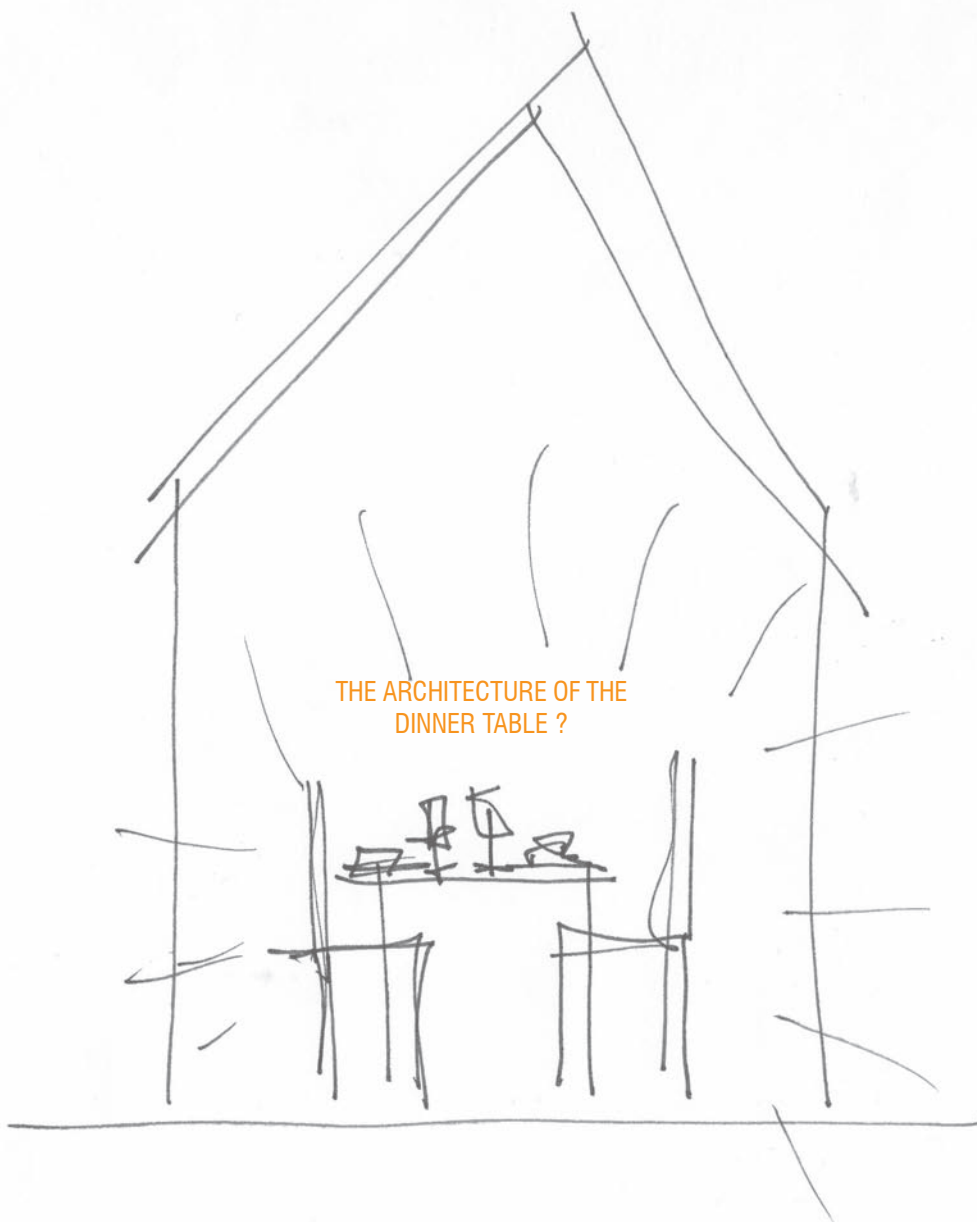


Fig. 1.9

Architecture staging the meal

The interior decor and architectural framing both in aspects of room, table, and tableware have an ability to unfold a micro-cosmos of their own around you, considering table or plate as a piece of architecture in themselves framing our social lives and well-being in the world.

Staging the contemporary meal

With the initiate historical perspective on the staging of the meal experience, I described the epochal change from grandiose and theatrical banquets into exclusive public restaurants as social frames. The Art Nouveau restaurants Vagenende and Julien not only formed and followed the trends of their time, but furthermore came to form perhaps also our contemporary conception of a genuine exclusive restaurant interior today with their high ratings among top-ten restaurants in Paris. But are the architectural means and sensuous experiences provided with their grandiose style still relevant today?

In 1908 with the small-scale interior of the American bar; *Käntner bar*, architect Adolf Loos interpreted the voluminous and vivid Art Nouveau style into a much more strict geometrical style, though, still providing the highly sensuous and dramatic space of Vagenende and Julien, but by means of lesser visual and figurative ornamentation.

Loos, who became widely known and perhaps misinterpreted for his statement: *ornament is a crime*, (Sarnitz 2003:9) interpreted the poetic and dramatic atmosphere created with the Art Nouveau style into similar sensuous style comprising no figurative images or whip-lashed shapes. Instead expressing the aesthetic ornamentation through an opulent and luxurious use of materials as mahogany, brass, onyx, marble, coloured glass, mirrors, leather and silk fabric, combined with a careful and skilled understanding of architectural detailing and composition down to the corners and finishes of banisters. With the interior of only 4,45 x 6,15 metres, having the bar occupying one third of the entire space, Loos managed to present in an exquisite manner a both highly intimate and open space at the same time. He widened the visual comprehension of the double-high space by an optical trick using paralleled positioned mirrors above eye level to extend the yellow-white marble cassette ceiling into infinity, and dissolved the entrance into a glass wall by the use of three uniform glass doors. In this way he allowed for a grand view into the busy streets of Vienna, visually giving the ability of far reaching perspectives. However, at the same time creating a tactile and bodily intimate space of two small u-shaped seating areas and a dark masculine interior of green leather and mahogany panels with brass detailing providing a mysterious atmosphere inviting for comforting privacy and close contact. The bar shows a fascinating spatial architectural achievement utilizing a small compact space and clearly readable spatial qualities to create a social platform with a rich, intense and dramatic atmosphere around the act of drinking.

The architectural understanding and chaste use of material and detailing as ornamentation initiated with Loos formed the premature basis of what later evolved into Modernism. (Sarnitz 2003:7) With the SAS Royal Hotel in Copenhagen, built in 1960 by Danish architect Arne Jacobsen and his proposal for the hotel restaurant, the delicate

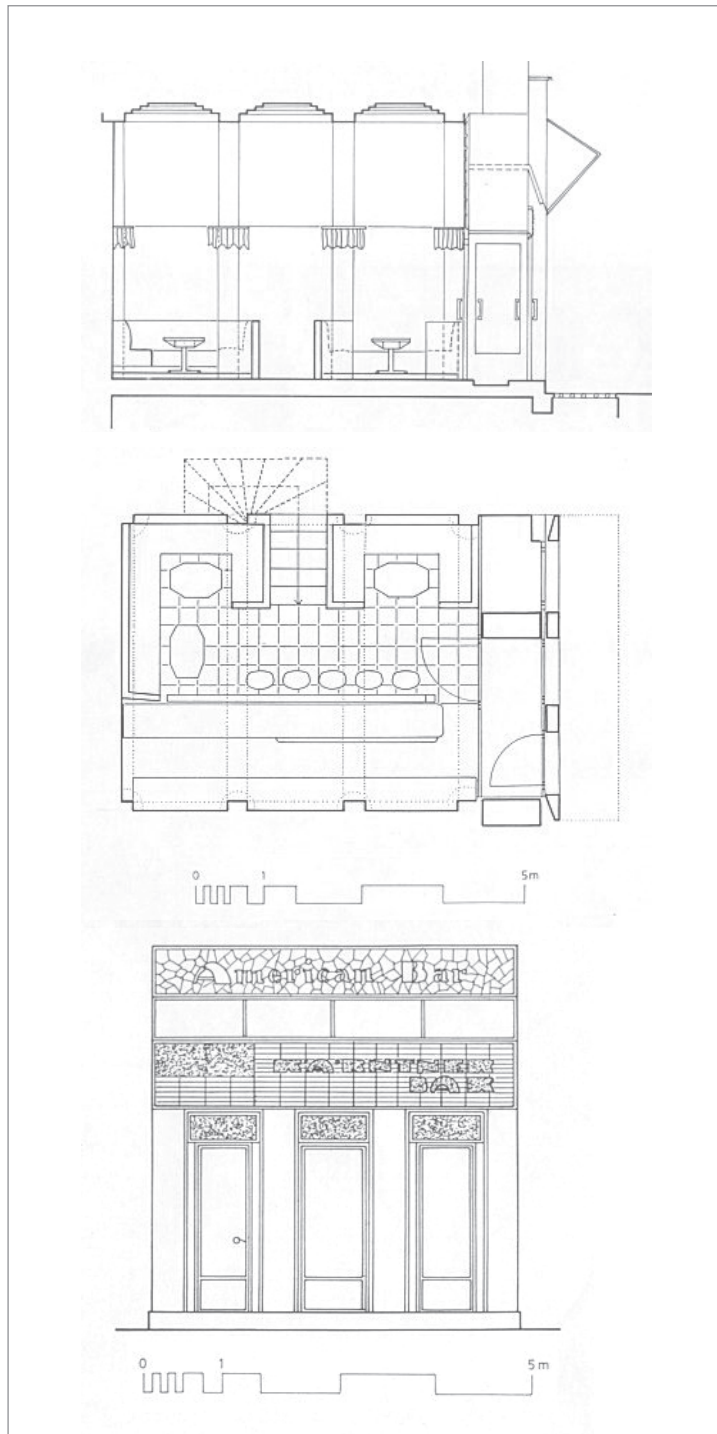


Fig. 1.10

Kántner Bar, section

Paralleled Mirrors and double-high room widening room perception and giving the sense of an open space. (Tournikiotis 1994:55)

Fig. 1.11

Kántner Bar, plan

Furniture niches forming intimate spaces and providing privacy. (Tournikiotis 1994:55)

Fig. 1.12

Kántner Bar, facade

The entrance is dissolved into a glass wall by the use of three uniform glass doors. In this way Loos allowed for a grand view into the busy streets of Vienna. (Tournikiotis 1994:55)



Fig. 1.13

Kämtner Bar, interior
*Surface treatment, rich
 detailing and material use
 creating a sensuous and tactile
 atmosphere. (Sarnitz 2003:35)*

uses of texture, material, and detail implied by Loos in Kämtner bar, was fully unfolded into the smallest details of tableware, door handles and even caviar wrappings. The tableware; cutlery, glasses, ashtrays, candleholders, table lamps, and salt and pepper castors were all, besides the plates which were the soft green version of the Danish Mussel china by Royal Copenhagen [sic!], especially designed for the restaurant. And the contrasts between the objects; large, small, curved, straight in the entire room allowed for each object to be experienced as an individual artefact, each taking the form appropriate to its specific use. The SAS Hotel is considered one of Jacobsen's masterpieces, exactly because it comprises a complete architectural setting, melding exterior, interior, furniture, and finishes of tableware and interior detailing into an integrated whole. A modern *gesamtkunstwerk* where everything even fabrics and colours have been designed and developed for its specific use. (Sheridan 2003:9)

Considering the interior aspects of the grand open space of the restaurant comprising more than hundred persons, Jacobsen uses hanging textiles or curtains, carpets and glass partitioning walls to divide space into smaller more intimate spaces, as well as shrouding the entire room in an thick covering of soft fabric, providing comfort, absorbing sound and heightening the sense of domestic ease. - An atmosphere of repose and leisure celebrating the sensual and social pleasures of dining, further emphasised by the cultivation and sensuous play of light and shadow through shifting effect of transparency in patterns and colours of the textiles and fabrics, and the diffuse indirect lightening creating a discreet, luminous border around the dark surfaces of floor and ceiling. Patterns in curtains, carpets, furniture, and room design are characterized by the repetition of simple form into complex patterns of high effect; for instance the abstract interpretation of the chandelier into a grand grid of circular built-in lamp in the ceiling picturing the ten-armed function through ten identical glass jars in the niches instead. Or the poetic play of patterns creating a visual transparency to opacity depending on the shifting direction of light, the movement of the viewer or the movement of other persons (see figure 1.17). Which proves Jacobsen's sense of aesthetic ornamentation by simple geometrical means.

With the high sense of material use, rich cultivation of surfaces and detailed treatment in all scales, the restaurant by Jacobsen to me is an example of sensuous architectural staging, creating and communicating an intimate and exclusive atmosphere around the individual diner allowing for bodily comfort and sense of privacy even though seated among hundred others. As well as the entire setting reflects careful considerations on the relationship and scale between body and object; whether holding the body or being held by the body, thus endeavouring the close relationship between table, room, plate and user.



Fig. 1.14

SAS restaurant, interior

Moulding of interior, furniture and tableware into an integrated whole, carefully staging the entire dinner. (Sheridan 2003:156)



Fig. 1.15

Private room

Textile hangings as room division, creating intimate and private spaces around smaller societies. (Sheridan 2003:246)

Twenty years later in 1981 the two architects Claus Bonderup and Torsten Thorup not only take the architectural settings around eating and drinking into new neo classical standards, but furthermore introduce the concept of the French café for the first time in the small Danish town of Aalborg, with their proposal for the *Café Brix*. The café was owned by artist Anne Just⁹, and by means of an extremely precise form and geometrical composition in both room configuration and interior design, Bonderup and Thorup utilised the classical order, harmony and symmetry to create a spatial setting around the serving of espresso, café au lait, cappuccino, coffee, tea, pie, sandwiches, snacks, wine, drinks and beer, which corresponds to a specific use like the proposal for Kämtner bar by Loos. However, despite the very specific room configuration and the built-in niches for seating, the proposal for *Café Brix* resulted in an architecture that embraces its users and opens



Fig. 1.16

AJ cutlery for SAS restaurant

Each object developed for its specific use, considering the relationship and scale between object and body.

(Thau & Vindum 2002:49)



Fig. 1.17

Interior transparency

Articulation of movement and shadow with textile hangings, geometrical patterns and light; creating a poetic and highly sensuous experience.

(Sheridan 2003:157)

up towards multiple use of the space. Furthermore the geometrical patterns forming grand interior vues and pathways in the flooring and furnishing allure an intriguing relation between scale and movement in the otherwise rather small room. It is as if the splendour of the great old Parisian streets and their magnificent geometrical system has been applied the scale of the small public dining room of the café, though preserving the sense of greatness and magnificence.

Unfortunately the small town and its inhabitants were not ready for such an attempt, and the *Café Brix* had to close down just a year or so after its opening.

Whereas all of the previous restaurant settings primarily evolved around rectangular plans focussing on the spatial configuration of

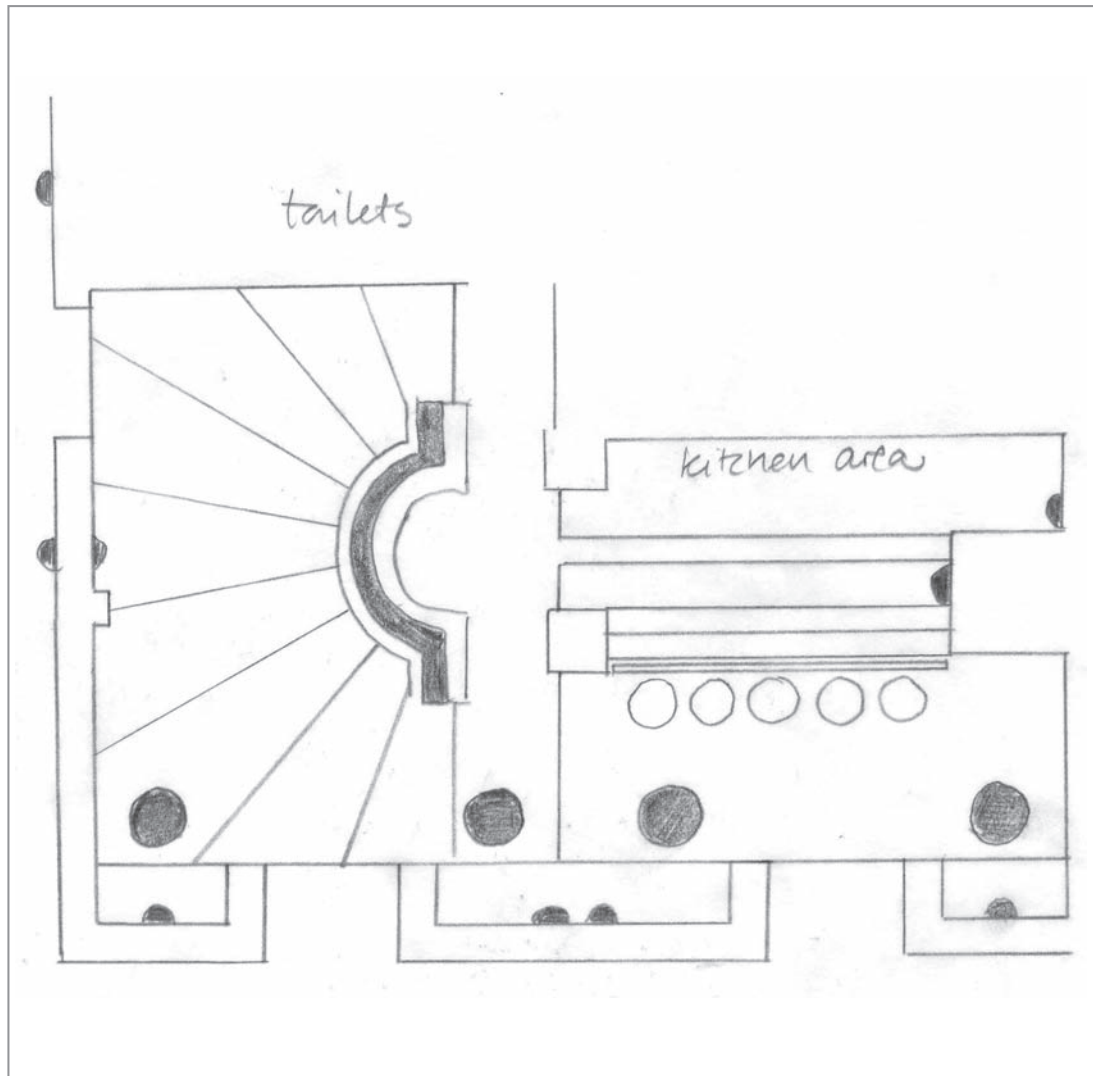


Fig. 1.18

Café Brix, plan

Precise geometrical form and symmetry reflecting a specific use and creating a grandiose and splendid interior vue like the old Parisian gardens or street venues.

>> Each cavity interior is accentuated in strong hues emphasising the internal space of the morphed structure and its smooth surfaces, creating a dramatic and spectacular atmosphere as the colours are exposed in glimpses through the gaps of the structures. <<

furniture and décor in the overall room, the contemporary architectural tendencies move towards a merged space and interior. This changes the perception of elements as flooring, walls, and ceiling into fluid plastic form. Restaurant Georges in Centre Pompidou, Paris, France made in 1999 by the design studio Jacob + Macfarlane is one of the first examples within the restaurant milieu of this plasticity.

From the grid of the flooring a voluminous landscape of morphed shapes raises, creating a spectacular fluid space where flooring merges into walls and ceilings, and back into flooring again, forming cavities within the overall room and inviting for complex spaces and movements in between the emerged structures. These cavities comprise respectively kitchen, wardrobe and toilet, VIP lounge, and bar- leaving the remaining outer interior as main eating area formed by big scenery of tables and chairs. Each cavity interior is furthermore accentuated in strong hues emphasising the internal space of the morphed structure and its smooth surfaces creating a dramatic and spectacular atmosphere as the colours are exposed in glimpses through the gaps of the structures. (Rosa 2003:29) Some of the same drama and sensuous dynamic shaping is at stake as the graceful and delicate movements of the Art Nouveau style, though in a much harsher and almost vulgar manner.

With its hard rubber and metal surfaces and the almost stripped off interior, the architectural style leaves no space for textiles or interior decoration beyond napkins and a single rose in minimalist vase on each table (see figure 1.19). The voluminous shapes and the articulated pipes and tubes hanging above the restaurant instead constitute the ornamentation, and create a futuristic dreamlike atmosphere awakening fantasy and imagination.

Restaurant Georges stands for an architectural style and time where digital technology and new processing methods within fabrication allow for a much more refined and complex structure than previously seen. This allowed the architects to engage in the spatial settings on a new level; challenging the inherited relationship between structure, function and form and the careful work with form as a fabric moulded and frozen into its current shape. (Rosa 2003:29) The approach further dissolves the archetype of restaurant room configuration otherwise prevailing in the previous examples. With Georges the level of detail is refined around the grand room structures, seemingly leaving the table settings and tableware as silent spectators of the architectural performance occurring with the grand bodies emerging of the floor.

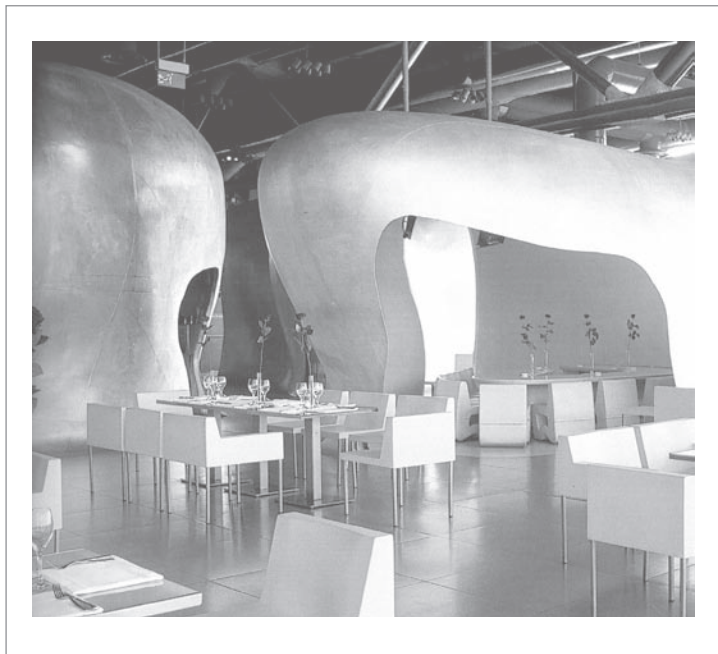


Fig. 1.19

Restaurant Georges, interior
Morphed shapes creating a plastic and dynamic setting engaging directly with the body through movement and kinetic perception; luring wonder and imagination. (Castillo 2003:3)



Fig. 1.20

Restaurant Georges, interior
The use of strong colours, tactile surfaces and embracing room elements to create a sensuous and dramatic atmosphere. (Castillo 2003:73)

Staging the future meal?

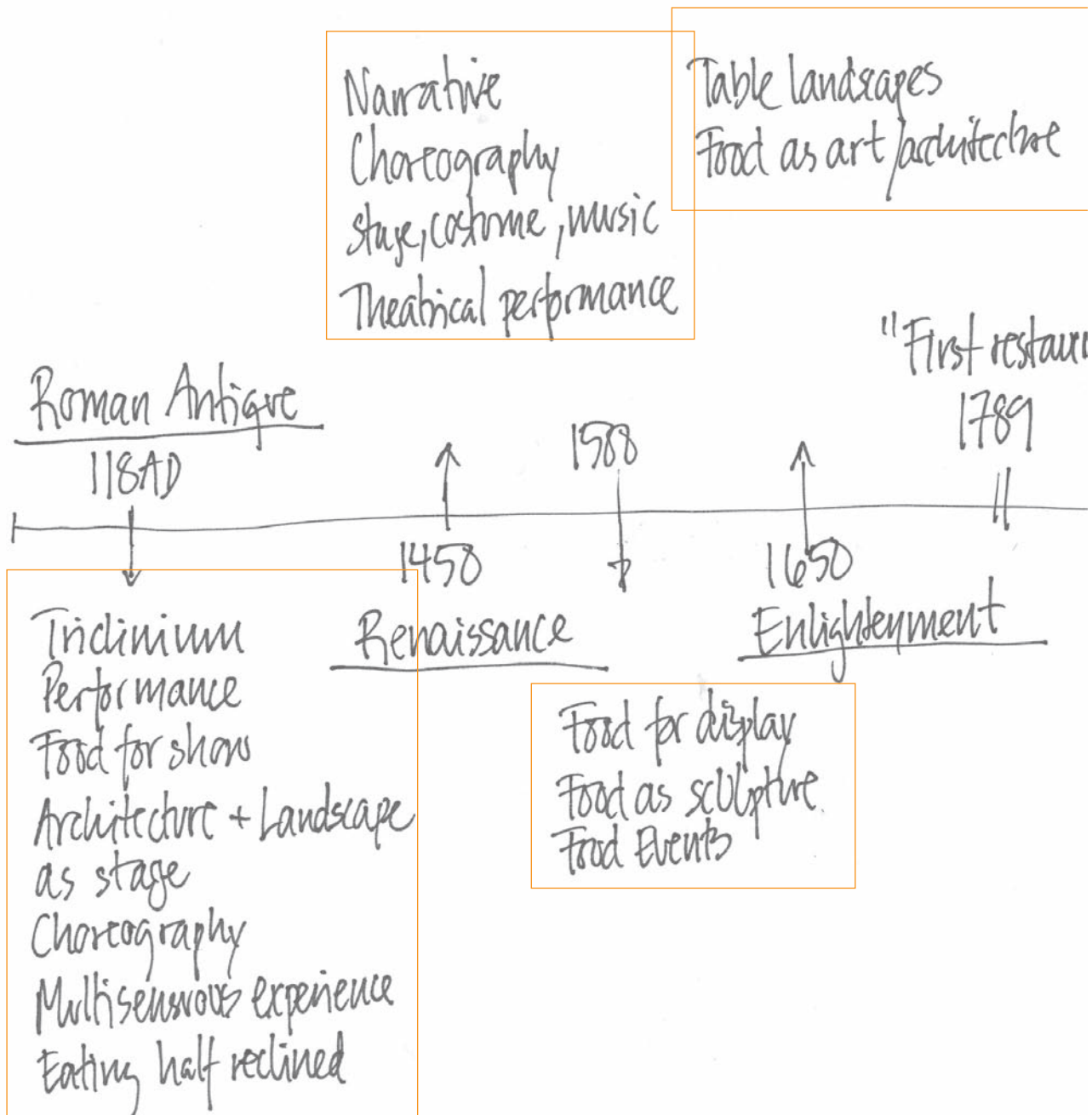
>> *There is a tendency towards the contemporary restaurants moving away from the soft bodily related qualities expressed by the use of different textiles and fabrics, or diffuse poetic play of light. Instead the bodily focus has moved toward the utilization of plastic form as a dynamic means to embrace the room and create mysterious morphed objects; visually and kinetic drawing attention, but tactile and bodily lacking the ability to really engage sensuously with the mind.* <<

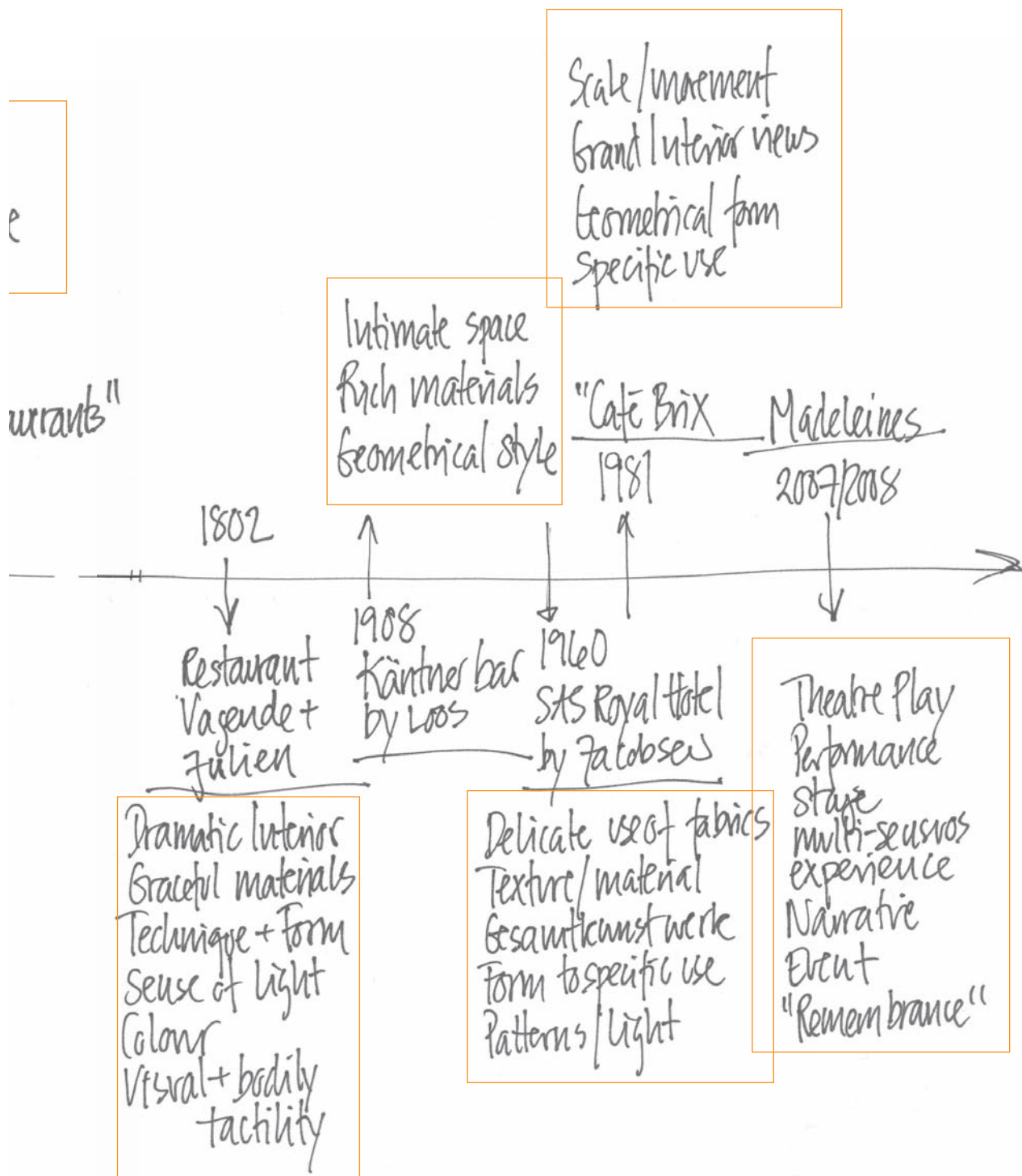
Each of the above examples of European restaurants stands for an epochal change within architectural style. As such representing different time perspectives on architectural quality and spatial configuration, use of material, articulation of form and detailing, as well as the inherited relationship to the body. As seen with the previous study of the different restaurant examples there is a tendency towards the contemporary restaurants moving away from the soft bodily related qualities expressed by the use of different textiles and fabrics, or diffuse poetic play of light as for instance highly utilized in the interiors by Arne Jacobsen, Adolf Loos or the Parisian Art Nouveau restaurants Vagenende and Julien. Instead the bodily focus has moved toward the utilization of plastic form as a dynamic means to embrace the room and create mysterious morphed objects; visually and kinetic drawing attention, but tactile and bodily lacking the ability to really engage sensuously with the mind. Instead the spaces often leave the dining situation in a spare and futuristic atmosphere. One can only imagine what it would be like, being left alone dining in the grand landscape of restaurant Georges placed at the steel table among the huge metal bodies emerging of the floor. – A feast at the moon, a journey into a strange cold future, where the soft, natural texture of the food is the only item reminding you of the sensuous richness achieved with differing tactility and odour?

With the study of the historical banquets and the restaurant examples the comprehension of the atmosphere as intriguing or dramatic inviting for exploration both tactile and visually was especially emphasised by the theatrical settings around the meal. But also by the careful use of narratives in the shaping of for instance the Art Nouveau interior or the poetic play of light in textiles by Jacobsen at the SAS Hotel. These observations point towards the importance of the notion of architecture as staging, and especially emphasise the severe importance of surface treatments, detailing, material use, texture, light, movement, and the ability to engage physically with the body in scale of room, furniture and tableware.

It seems to me that some of the qualities applied by Jacobsen with his careful consideration on scale and material merging into a *gesamtkunstwerk* around the food potentially could have been used to enhance the bodily sensuous relation to a space like restaurant Georges; engaging in the food experience on a bodily level – without though corrupting the overall architectural idea.

It is therefore my conviction that the field of architecture today to some extent has lost the sense of staging meal experiences; neglecting the importance of architectural detailing, the use of sensuous materials as textiles and fabric, and the ability to stage experiences through built form and light in general from the perspective of room, furniture and tableware.





Goal and Intentions

In all the above restaurant cases the scene has firmly been set with a chair/a couch, a table, a lamp and perhaps tableware as uniform standardised elements never altering despite severe changes in time, architectural style or room size. Contrary to this most of the historical cases of grand banquets extend the setting of furniture, tableware and food by means of a performative and emotional layer. Hence, an enrolling of the meal experience in a superior narrative to create extraordinary experiences.

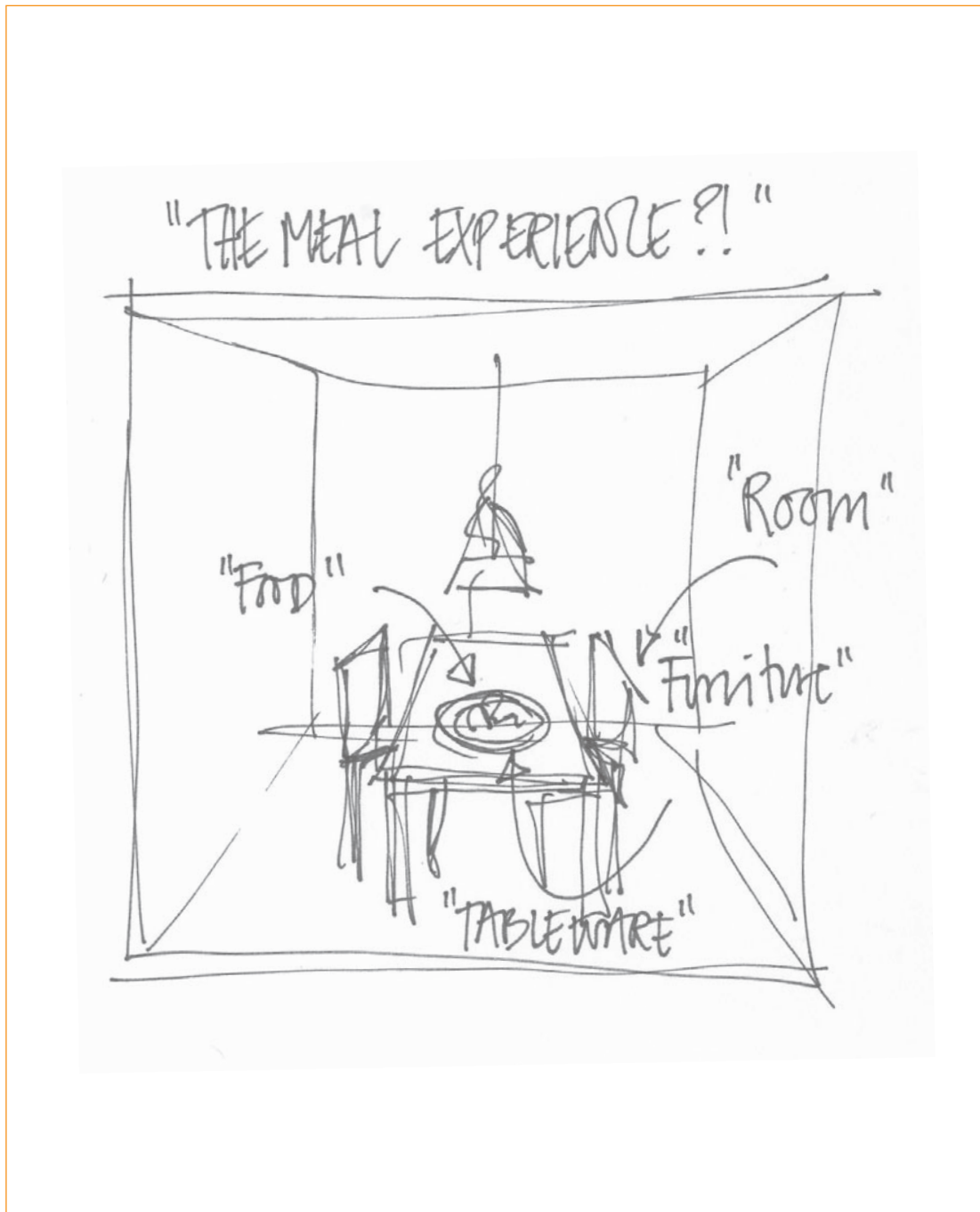
My interest in the engagement with the notion of architecture as staging is to try and rethink the above mentioned deeply rooted restaurant interior configuration. And instead reconsider the relationship of room, table, and plate to form a new expressive architectural environment or setting for the future promotion of Figgjo chinaware.

Hence, my intention is to be able to remove the entire furnishings of the restaurants endeavoured. Instead introducing a spatial small-scale setting which not necessarily utilises the ordinary typologies of chair and table in the staging of the meal experience or presentation of tableware, but which seeks to reflect the inherited significance of the tableware and the social setting around the meal, on the basis of the architectural qualities outlined in the previous sections.

With these viewpoints an initiate outline of the theoretical study begins to take form. Because to understand how to really engage in the design proposal for a Millennium Triclinium for Figgjo, and develop a setting which stages the meal experiences and puts focus on the relationship between tableware, architecture and food as means to promote their china, I need to elaborate on the role of architecture; encircle which aspects dominate the meal and how we physical as mental comprehend the overall experience.

In the following section initiate studies on the contemporary research fields within meal experiences relative to the role of architecture is therefore conducted with the intention of understanding which theoretical fields to further engage in and get an overview on the existing theories relating food and architecture.

Fig. 1.21
Architectural staging
In the previous restaurant cases the meal experience was expressed through the relationship of room, furniture, tableware and food. Historically, however, the meal was further emphasized by the use of performance and theatrical experiences. But what defines the meal experience according to contemporary Food Science?



CONTEMPORARY RESEARCH . FOOD AND ARCHITECTURE

Two persons have in particular sought to describe the meal experience theoretically by writing about the aspects of eating and perceiving food as a mixed matter of subjective knowledge, social dimensions, and sensational experiences. One of these is Professor of Philosophy Carolyn Korsmeyer, who in her book; *Making sense of taste*, expresses the meal experience through a series of B,H,C,T,O, and P components [sic!] (see also figure 1.22). (Korsmeyer 1999)

Korsmeyer's different components represent respectively; *B- the bodily causal factors*, being to some extent universal and unchangeable for all subjects. *H- the bodily conditions at time of ingestion*, being relative for each subject. *C- the cultural factors*, representing the subjective norm and values related to food choice. *T- the intentional object of taste*, relating to the tongue-, throat-, nose- and partly digestive system feelings at the time of eating. *O- the intentional object of the eaten item*, a part of the external world one digest. And finally; *P- the pleasure or displeasure of eating the item* (Korsmeyer, 1999:98). Korsmeyer approaches the experience of eating from a rather phenomenological and direct bodily point of view, where all the above components are circling around the psychological, sociological, and physiological aspects -or barriers, of eating a food item. Her approach, though, is strictly focused on the immediate meeting between the food item and the body and eliminates the subject from its surrounding environment. Room, plate, serving, company, and other context-related aspects are as such removed from Korsmeyer's meal aspects, which I find perhaps is a mistake if we consider the previous initiate perspectives drawn with the historical restaurant study.

Herbert Meiselman, a sensory scientist at the U.S. Army Food Laboratories on the other hand has mainly done research within the field of food evaluation. And whereas this field originally used laboratories for food evaluation tests Meiselman today argues that more research in human eating behaviour and food acceptability should be conducted in real eating situations, thus acknowledging the importance of the eating environment. (Meiselman 2000:36,37; Lawless & Heymann 1999:19) In relation to this, he advocates in his book; *Dimensions of the meal -the science, culture, business and art of eating*, that the meal experience is a complex mixed matter of physiological, psychological, nutritional, anthropological, sociological, culinary, economic, and business related dimensions, contenting among others; visibility, availability, effort, palatability, preference, mood, variety, sensory specific satiety, company, expectations, and location. (Meiselman, 2000:25) Here it becomes interesting because he contrary to Korsmeyer, acknowledge the impact of also surrounding space. As part of this approach, Meiselman further elaborates on the importance of retrospective meals; *meals eaten in the past and meals as memory*, as part of people's food choices and food preferences. He

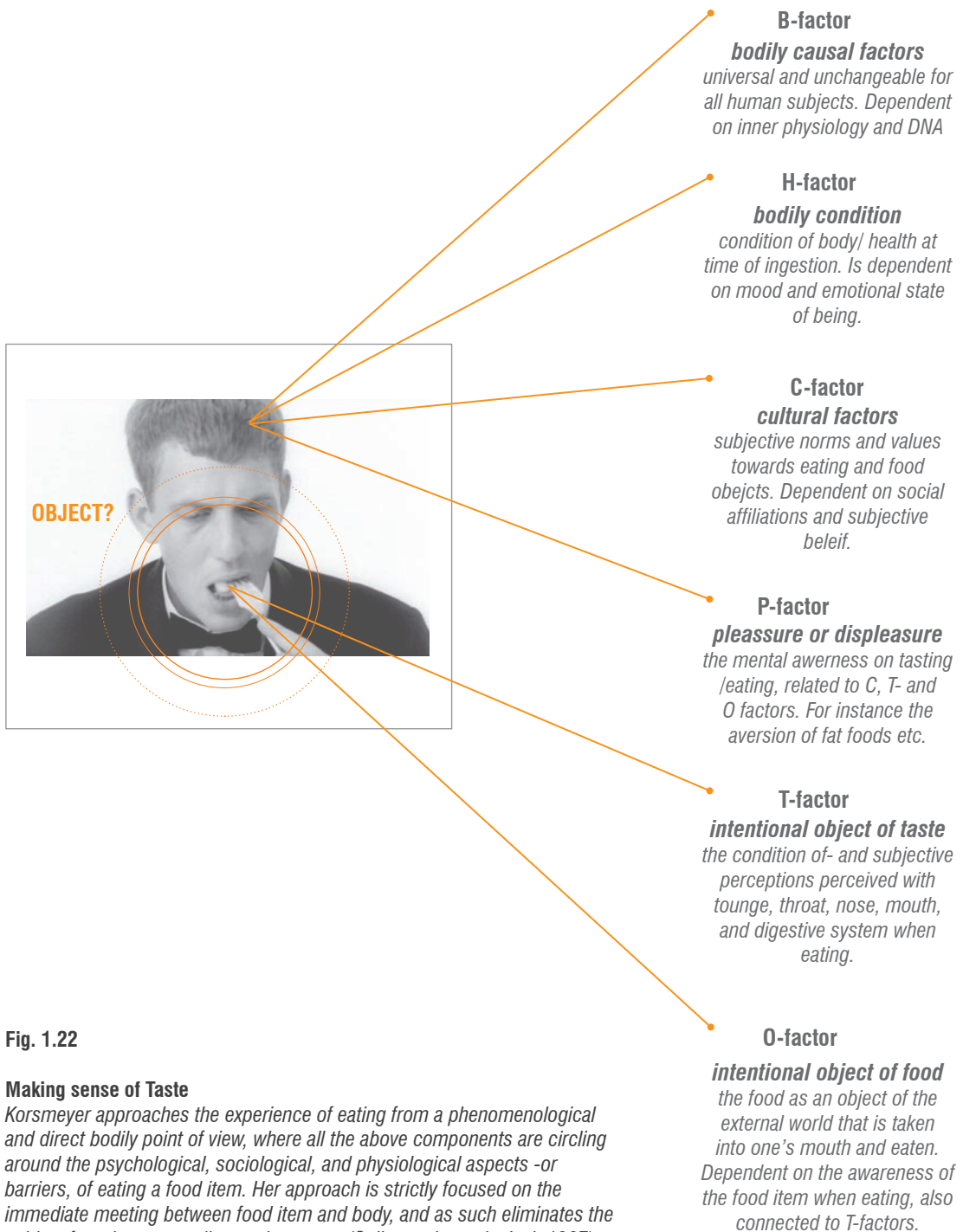


Fig. 1.22

Making sense of Taste

Korsmeyer approaches the experience of eating from a phenomenological and direct bodily point of view, where all the above components are circling around the psychological, sociological, and physiological aspects -or barriers, of eating a food item. Her approach is strictly focused on the immediate meeting between food item and body, and as such eliminates the subject from its surrounding environment. (Collage, picture by Leth 1967)

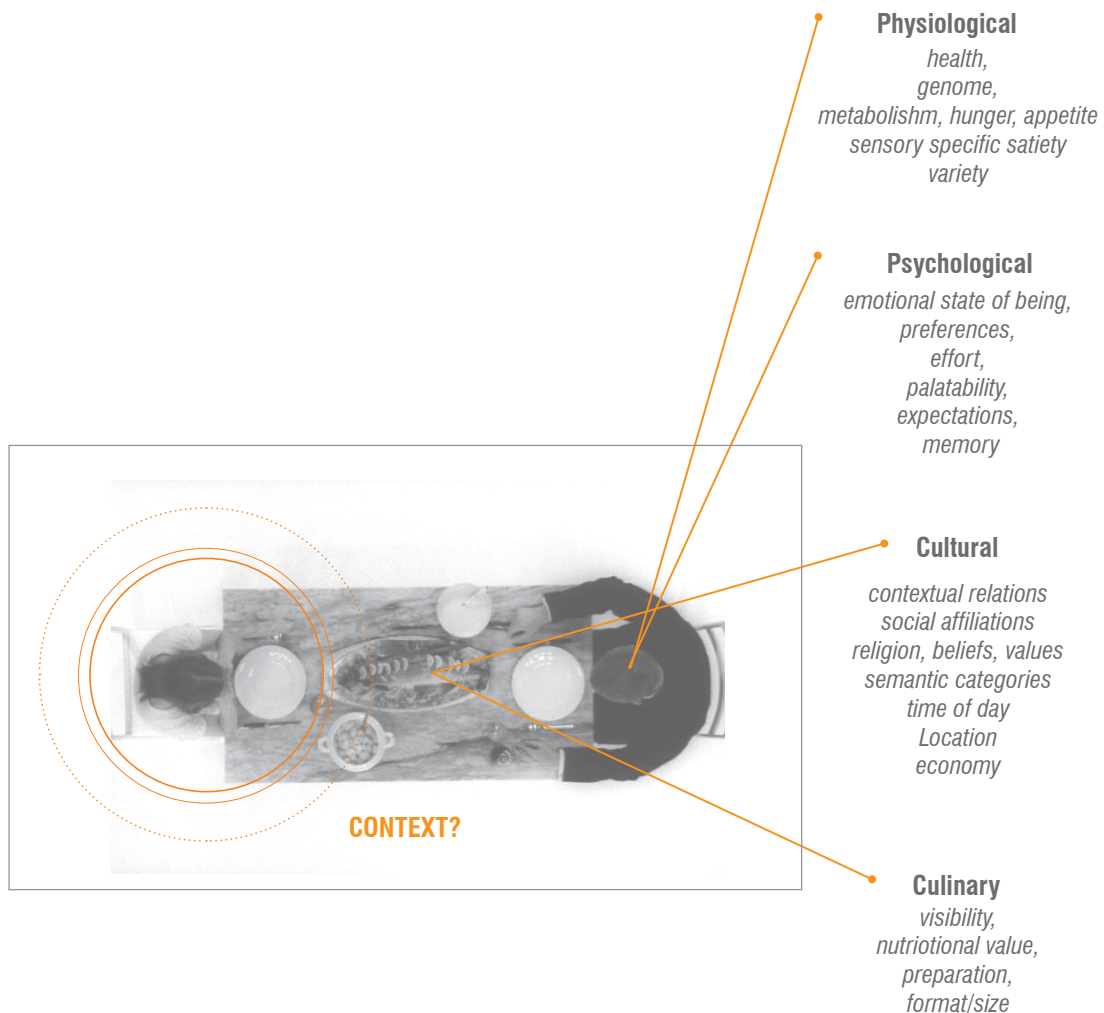


Fig. 1.23

Dimensions of the meal

Meiselman acknowledge the impact of surrounding physical space, and as part of this he further elaborates on the importance of retrospective meals; meals eaten in the past and meals as memory, as part of people's food choices and food preferences. As such suggesting the imaginary, emotional and latent memory plays a role in the understanding of food and satisfaction. (Collage, picture from Leth 1967)

suggests that the imaginary, emotional and latent memory plays a role in the understanding of food and obtaining food satisfaction.

The arguments of Meiselman are based on an elaborate reading of a series of journal papers and most importantly several consumer tests and surveys conducted by him self and collaborative research partners. Similar to all of the investigations performed are that they approach the meal experience empirically, however, most of them without ever exploring or discussion the specific impact of the environment and spatial settings. As so Meiselman partly acknowledge that spatial settings, room and interior design plays a role in the experience of eating, but do not really seem to touch upon this subject enough to actually be able to say something about *why* and *how* spatial settings or architecture play a role. In my opinion this is not just eloquent with Meiselman and to some extent Korsmeyer, but seems to be the case in several of the contemporary books, articles and papers regarding the subject of architecture and food, I have come across in my search for literature on this matter.

Literary and research review

My first meeting with the interrelated subject of food and architecture was as previously mentioned through the reading of the Ph.D.; *Food and Architecture* by Anna Marie Fisker (Fisker 2003). At that specific time I did not understand much of this relationship, nevertheless something caught my attention and especially the section where Fisker writes about her own meeting with the words of the English architect James Ferguson in the chapter; The gastronomic Analogy¹⁰. Here Ferguson relates architecture and food by claiming;

"The process by which a hut to shelter an image is refined into a temple, or a meeting house into a cathedral, is the same as that which refines a boiled neck of mutton into côtelettes à l'Impériale or a grilled fowl into Poulet à la Marango" (Fisker 2003:11; Collins 1965:167).

Since then the thought rested in the back of my mind, and I kept wondering if that was what it was about? Was the relationship of architecture and food, that one field could learn from the other? That preparing food and designing buildings were really a matter of the same process of considerations on taste, shape, and material?

Then during the research for present project I met the reference to Ferguson again. This time it was in the book; *The architect, cook and good taste*, (Hodgson & Toyka 2007:61). Before that I had found several books, articles, magazines, and papers occupied with aspects of the subject food and architecture, but managed only to find very few specifically approaching this interrelated field. These were beside the previously mentioned references, the book; *Eating architecture* (Horwitz & Singley 2004).

Here, as with *The architect, cook and good taste*, a widespread group of authors have been invited to fabulate upon analogies of food and architecture, and the result is an intriguing collection of thoughts speculating upon subjects of consumption, urbanism, processing, rituals of eating, food as art, and industrialisation, just to mention some. Otherwise the literature I found, mainly focuses on respectively; a historic, culinary and rather philosophical point of view, or quite the opposite; a food scientific, empirically rooted point of view. The group of more historic, gastronomic and philosophical literature represents a wide range of historic cookbooks, polemic and fabulating books on subjects relating food with architecture through analogies of philosophy, linguistics, religion, poetry, art, media, sociology, anthropology, ethnography, and last but not least; *history*. However, common to them all, in my opinion, are that they all despite their intriguing approach and inspiring stories regarding relations of food and architecture, nevertheless fails to be specific. Their hermeneutic approach and poetic style becomes their barrier against relating it directly to existing architecture and eventually stating something about architectural shape in relation to food and the impact of eating. As with Ferguson the tendency instead is to look upon the direct relations of processes within architecture and gastronomy; the architects' and the chefs' skills to develop, design and perform matter; the analogies of architecture and food so to speak, not how it is related.

If we then on the other hand look upon the more scientific, empirical rooted articles, mainly represented through a series of journal papers from; *Food Quality and Preference*, *Appetite*, and *Food Acceptability*, a tendency, as mentioned in the above discussion on Meiselman, goes towards a focus on measuring if there is a difference between perceived experiences of identical foods in different settings. Here a growing amount of surveys and consumer tests is being conducted in local eating environments as opposed to food tests in the ordinary sensory evaluation laboratory; otherwise seeking to minimize the spatial impact on food evaluations by down toning interior design as colour, furniture, light and controlling indoor climate; humidity and temperature. (King et al. 2007; King et al. 2004; Edwards et al. 2003; Meiselman et al. 2000; Cardello 1995; Bell et al. 1994; Gibbons & Henry 2005) A reason for this change in environment in food evaluation tests is according to King et al. the acknowledgement that identical foods will perform differently in different spatial settings, but also that the change in socio-cultural environment is of great importance for the final result. (King et al. 2004:646)

All of the above mentioned papers or references (see also figure 1.24) show significantly results towards an impact on food acceptance by means of location and spatial settings, and in Gibbons & Henry it is even encouraged that planners and designers need to consider the

Fig. 1.24

Time line

Generally the research on the subject Food + Architecture can be divided into two major fields; the more positivistic, quantitative rooted and the more hermeneutic, qualitative rooted. Both approaches also define the two superior fields of respectively Food Science and Architectural theory/ history/ philosophy.

Analogies of food and architecture

Hodgson & Toyka, 2007
Architect, cook and good taste

Kirshenblatt-Bimblett, 2007
Food and performance

Gustafsson et al., 2006
Five aspects meal model

Schifterstein & Cleiren, 2005
Senses and memory

Horwitz & Singley, 2004
Eating architecture

Franck, 2004
Food + the city

Köster, 2003
Memory and subjectivity

Fisker, 2003
Food and architecture

Franck, 2002
Food + architecture

Hegarty & O'Mahony, 2001
Gastronomy a fine art activity

Bek, 1999
Architecture as space and frame

Korsmeyer, 1999
Sense of Taste

Roberts et al., 1999
Sensory processes of cognition

Collins, 1998
The gastronomic analogy

Barthes, 1996
Mythologies

Bartram, 1974
Role of semantic codes

Brandt, 1968
Joy of the kitchen table

Eco, 1968
Function and sign

Gibson, 1966
Senses as perceptual system

Brandt, 1963
The good table

Rasmussen, 1962
Experiencing architecture

1940 1950 1960 1970 1980 1990 2000 2007

sensation, perception, colour, sound, texture, light, food, sign, meaning, tableware, socialization, taste, aesthetics, processes, art, performance, room, memory

Empirical Studies

Theoretical Studies

King et al., 2007
Location NO impact

Jensen & Hansen, 2007
Consumer values in restaurants

Gibbons & Henry, 2005
Change in tableware, decor, light,

King et al., 2004
Four context effect

Edwards et al., 2003
home vs. restaurant

Meiselman et al., 2000
institution vs. restaurant

Cardello et al., 1996
Consumer attitudes towards foods

Meiselman, 1996
Contextual basis for food acceptance

Cardello, 1995
Context and consumer expectations

Bell & Meiselman, 1995
Lighting and sound impact

Bell et al., 1994
Changing restaurant interior

Rozin & Tuorila, 1993
Contextual influences

Meiselman et al., 1988
Situational factors

Milliman, 1986
Impact of music in restaurants

Belk, 1974
Appearance and Location

Green & Butts, 1945
Appearance and Location

Impact of settings and decor

eating environment with similar enthusiasm as a chef creating new menu plans. The only ones surprisingly finding different results are King et al., who argues that food acceptance is not significantly a matter of change in location and social relations, but finds that free food choice determines the level of food acceptability. (Gibbons & Henry 2005:28; King et al. 2007:64) As with the hermeneutic and historical literature none of the journal papers published concentrate specifically on the meaning of the spatial influences and what it means, but merely observe if an impact is apparent or not. The question therefore becomes if these changes in perception of food is entirely due to changes in socio-cultural environment or if architecture and design actually plays a role, as assumed during the historical study on restaurant and dining room interior? And most importantly, if architecture do play a role, then why and which?

I discovered a gap, so to speak, within the theoretical field of architecture – and food science. A gap, where food evaluation and sensory research on one hand acknowledge that shape; hence architecture and interior design, possibly play a role in the overall food experience. But where the same researchers on the other hand naturally do not show much interest in the specific understanding of architectures impact on the food experience. Similar within the historic and culinary field, as well as the architectural theoretical field, a small group of writers have occupied themselves with writing about the relation of food and architecture. As with the food researchers, however, these references only sporadically seem to touch upon this subject and in a mere hermeneutic approach, not brining it into actual shape. Clarifying what the concrete relation is, or how it can be understood for instance through the use of architectural analytic tools or in a specific design process. As so there is in my opinion no obvious theory or contemporary research directly dealing with the subject of present thesis; staging the meal experience, or pointing towards a method of implementing the aspects of food and tableware in the design of eating environments. I therefore find it necessary, even though it can be questioned scientifically, to engage both in the fields of architectural theory and food science. This approach has been chosen with the intention of investigating the relationship of architecture and food, and using this fused knowledge as a basis for developing the design proposal for Figgjo.

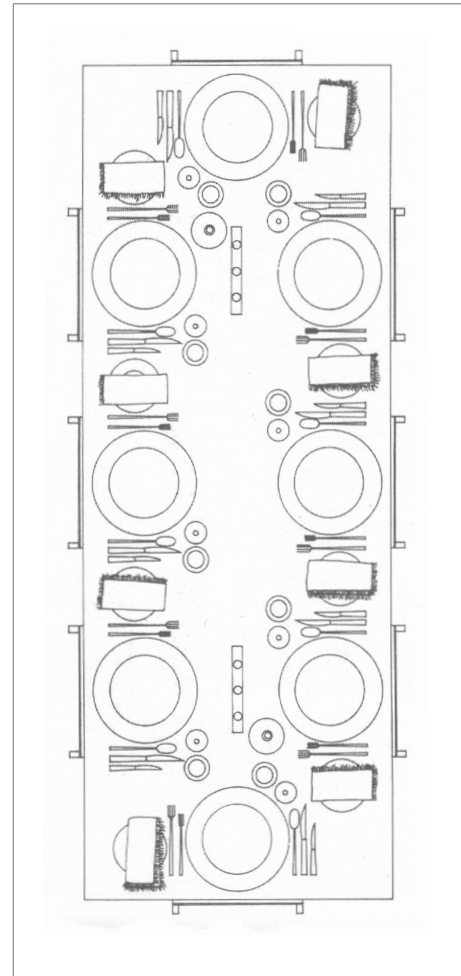
With the following chapter a discussion on the considerations on method and approach for the theoretical study on staging the meal experience is further elaborated. Here I seek to argue for the fused field of architectural theory and food science, as well as present a readers guide on the following theoretical chapters, outlining a strategy towards the design approach for a proposal for a showroom facility and eating environment for Figgjo.

>> *I discovered a gap, so to speak, within the theoretical field of architecture – and food science. A gap, where food evaluation and sensory research on one hand acknowledge that shape; hence architecture and interior design, possibly play a role in the overall food experience, but where same researchers on the other hand naturally do not show much interest in the specific understanding of architectures impact.* <<

Fig. 2.0

*An architectural ordering of
place, status, and function. A
frozen moment of perfection.*

*This is how architects see.
By Sarah Wigglesworth
Architects, London.
(Horwitz & Singley, 2004:12)*



Chapter 2 THE LAY OF THE TABLE

METHOD + STRATEGY

Architecture and gastronomy are two rather large disciplines in themselves and as seen with the previous chapter contemporary research offers no straight answer as how to approach these fields coherently. With the introductory chapter this dilemma was further emphasised in the section outlining the relations of food and architecture by means and theories of respectively Korsmeyer and Meiselman. In addition hereto the literary review also clarified that research within both the food scientific and architectural field give no coherent answers as how to approach the relation of food and architecture or on which terms the good meal experience is defined. An area is almost left untouched within architectural theory so to speak. The purpose of present chapter has therefore been to define a way to encircle a theoretical approach towards a cross-disciplinary field fusing gastronomy and architecture, as well as a way to endeavour architecture as staging of meal situations and as means to enhance Figgjo meal experiences both in scale of room, table, and plate.

There have, though, not always existed a scientific field within architecture. Engaging in architecture do not necessarily prescribe a theoretical approach at all. Some architects would even claim that a literary or theoretical elaborating on every detail in the beauty of built shape would demean the aesthetic and spirit of architecture as an art form. (Mo 2003:iii) Now seeking to fuse architectural theory with the empirical knowledge gained within the food scientific research fields would probably strengthen the oppositions and contradictions of this stand even more. However, to fully understand the impact or role of architecture on the meal experience and to be able to make an applicable design proposal for a Millennium Triclinium for Figgjo, I find it is necessary and of great importance to engage in a theoretical study defining what is actually meant by a meal? *Which aspects define the meal experience? How is the good meal perceived- and does bad architecture necessarily lead to bad food experiences?*

The contemporary architectural theoretical field do not engage in these aspects of the meal in any particular or specific manner. As why my thesis prescribes an experimental approach seeking to apply some of the directly meal-related theories on food perception from the food scientific field in the architectural theory on room perception to fully comprehend the aspects of the meal and the role of architecture in relation hereto.

According to Professor of sociology and writer in philosophy of science; *Linn Mo*, architecture incorporates a schism of intuitive experiences and approaches the artistic fields because it endeavours feelings and sensations. But architecture can not be fully considered an art form, because it also incorporates a functional purpose and is subject to specific legislations and building requirements. (Mo 2003:152) The

>> *To fully understand the impact or role of architecture on the meal experience and to be able to make an applicable design proposal for Figgjo, I find it is necessary and of great importance to engage in a theoretical study defining what is actually meant by a meal. Which aspects define the meal experience? How is the good meal perceived- and does bad architecture necessarily leads to bad food experiences?* <<

>> *What binds the two theoretical fields together in my opinion, is then exactly what Mo defines as the main purpose of architecture; **the experience** – in my case the experience of the meal situation. The understanding of the bodily sensations and the perception of the entire dinner, based on previous and present events form both an architectural and food scientific point of view. <<*

purpose of architecture according to Mo is to be a specific product which in its nature is meant to form the basis of experiences; *a perfection to stimulate critique of society and affect human lives*. But so does food science in my opinion. The chef in his considerations on the meal or taste of food endeavours the lower senses and emotions through smell and gustatory taste. And food is simultaneously object to strict legislations of hygiene and food safety at the same time fulfilling needs for nutrition. (Korsmeyer 1999: 2) My motivation for- and the validity of this cross-disciplinary theoretical move therefore becomes the intent of creating experience. The will of staging the Figgjo meal experience and as referred to in the introductory chapter this is based on a firm belief in architecture as phenomena. - A belief on architecture as frame and intent around our being-in-the-world and common activities as eating. Thus penetrating the meal down to the last bid of food, as a situation deeply enrolled in the means of form and design.

According to Bek and Ballantyne architecture forms the immediate frames of our lives and not only impacts the way we move around city-domains, but further defines our being-in-the-world. (Bek & Oxvig 1999:12; Ballantyne 2002:1) According to Korsmeyer and Meiselman the act of eating involves both cultural, social, environmental, psychological and physical aspects. (Korsmeyer 1999:98; Meiselman 2000:37) These aspects define the meal as an act so deeply rooted in bodily sensations and mental perception of form and taste that it becomes difficult to separate the architectural theory from the food scientific theory when you seek to describe what makes the good meal. What binds the two theoretical fields together in my opinion, is then exactly what Mo defines as the main purpose of architecture; *the experience*. – In my case the experience of the Figgjo meal situation; the understanding of the bodily sensations and the perception of the entire dinner, chinaware, furniture and room, based on previous and present events form both an architectural and food scientific point of view.

An engagement in architecture as staging thereby demands a study on the existential aspects of buildings and the meal through our perception of space, to be able to understand the essential aspects of the following architectural design practice on a deeper theoretical level than the initiate study on historical dinners or restaurant interiors.

Architectural Theory

Within the architectural theoretical field one of the means of understanding room perception through time, has according to Mo been the involvement in the phenomenological comprehension of space. Here means to understand the impact of space has been the

close relation of bodily sensations and our surrounding experiences as phenomenon; *the bodily movement as an act uniting object and mind*. Buildings within the phenomenological way of thinking should therefore not be considered mere physical objects, but phenomena encountered and made part of our lives and minds through dwelling or a sense of belonging. (Mo 2003:57)

In this way we ascribe significance to the buildings and spaces we encounter, and does so on behalf of the bodily and sensuous contact together with our inherited social and cultural norms and values. With this Mo further arrives at the theories of structuralism and semiotics. Here indicating that phenomenology perhaps is not providing the infinite answer to room perception. The semiotic way of thinking in addition to phenomenology provides an insight in the equivocal significance of objects. The object as a signified and simultaneously as a signifier, suggesting that each item encountered encompass the potential of a disguised meaning contrary the obvious function making the perceived object a result of time, place, intent, and user. (Mo 2003:91) Semiology offers an approach by which built environment can be read and decoded, and as such semiotics and cognition is closely related. However, semiotics relating more to the cultural world and cognition to the natural sciences. But their results and the questions raised about understanding and reading on surroundings are both deeply rooted in philosophy and this field's thoughts on existentialism. It is furthermore this relation to existentialism; the understanding of what it means to be-in-the-world, that links the field of semiotics to phenomenology, and the physical comprehension of space through the senses. (Leach 1997:182-183)

>> *We ascribe significance to the buildings and spaces we encounter, and does so on behalf of the bodily and sensuous contact together with our inherited social and cultural norms and values.* <<

Two architects stand especially clear to me in the comprehension of the sensuous impact of space, and these are Danish architect Steen Eiler Rasmussen with his book; *Experiencing architecture*, and Finish architect Juhani Pallasmaa with his book; *Eyes of the skin*. (Pallasmaa 1996; Rasmussen 1962) Both of them have with their writings theoretically endeavoured the description on space perception from a phenomenological and partly semiotic point of view. And both of them have emphasised the importance of reading space not only with your eyes, but with the entire body; *feeling space and shape through touch, movement, sound and smell*, as well as understanding architecture as part of our culture and time. (Pallasmaa 1996; Rasmussen 1962) Neither of them, however, writes much about the fifth sense; *taste*, and it's relation to the comprehension of space. Nor do any of them endeavour the theoretical field of phenomenology or semiotics more elaborate than the intuitive descriptions of space perception through the different sense modalities. Rasmussen's book in my point of view, is a basic introduction in the comprehension of architectural space, enlightening and emphasising the perception of architectural means and shape through the five senses without any intentions of an elaborate theoretically rooting. Pallasmaa on the other hand more thoroughly seeks to carry out a theoretical basis, advocating for the

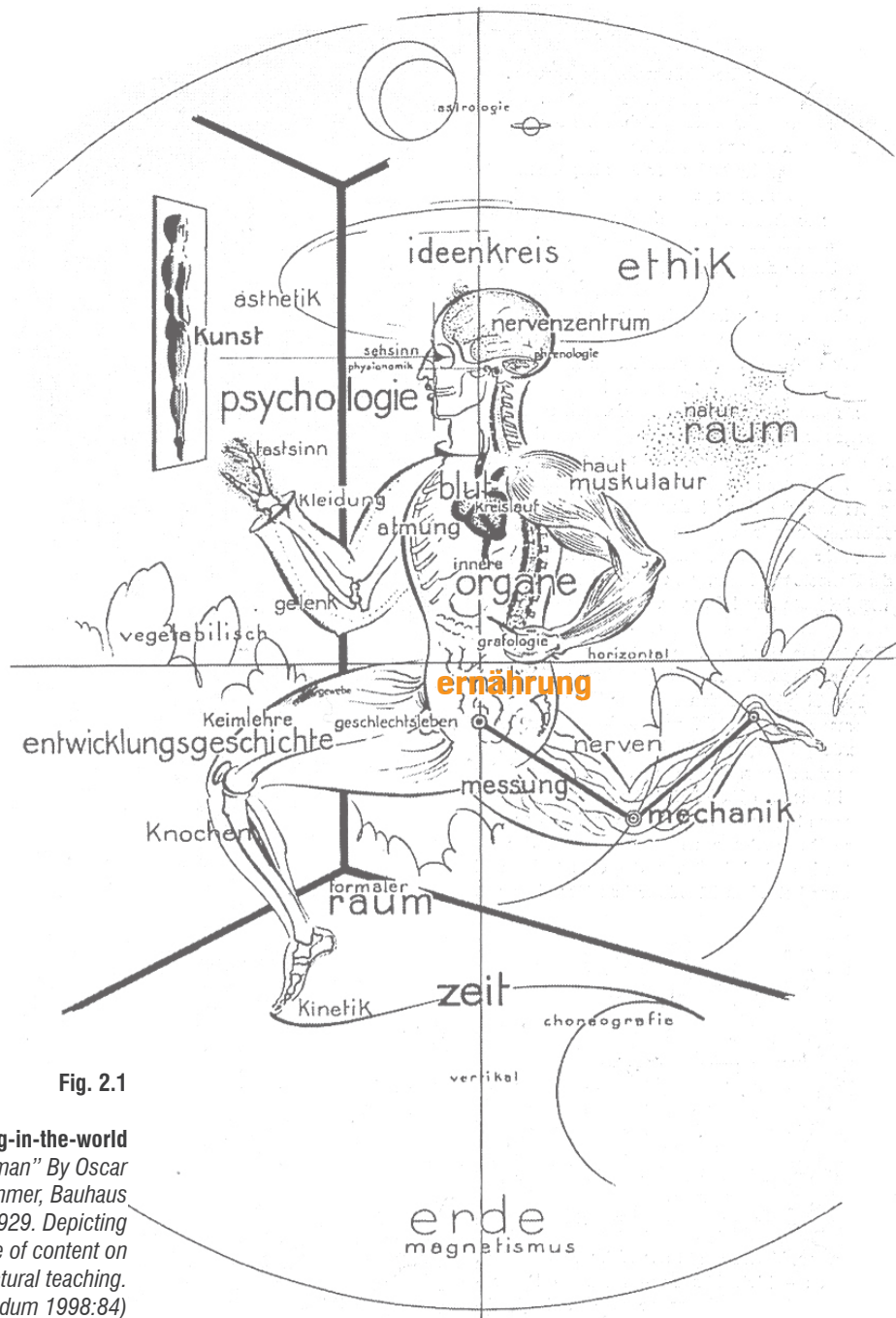


Fig. 2.1

Being-in-the-world
"The Human" By Oscar Schlemmer, Bauhaus 1958-1929. Depicting schematic outline of content on architectural teaching. (Thau & Vindum 1998:84)

body as the centre of the perceptual world and multi-sensuous and poetic experience of architectural space perceived through touch, movement and smell. But unfortunately Pallasmaa in my opinion lacks the ability to fully clarify the basis of this belief. A study on the perception of space relative to the meal experience must therefore engage with theoreticians beyond the architectural field; going back to the initiate theories on semiotics, phenomenology and space perception through our body and the five senses to fully engage in the perception of architecture relative to food.

Within food science, experience of space has mainly been based on the perceptual-psychological theoretical field, underlining the comprehension of phenomena through physical stimuli being perceived with the senses and processed mentally in the brain through cognition. (Köster 2002:368; Schifferstein 2005:294) A much more positivist comprehension of our surroundings than the phenomenological or semiotic way of thinking, ascribing non-measurable significance to the objects encountered. The approaches towards perception is as such radically different between food science and architectural theory, and initially so contradicting in their present form that you can not merge them into one theoretical field. But perhaps it is exactly the lack of phenomenological and semiotic way of thinking that causes ambiguous results of the impact of environment in the journal papers referred to in the introductory chapter?

This equivalent question on space perception is what drives my search for a way to stage the Figgjo meal experience, and I have therefore chosen to initiate the theoretical study with a food scientifically based chapter. Investigating and demonstrating if the perceptual-psychological way of thinking single-handedly provides a satisfactory result on the impact of architecture on the meal experience, or if the fields of phenomenology and semiotics can contribute to a richer and more elaborate comprehension on the complexity of a meal. This leads me to the following chapter outline of the theoretical part:

Chapter outline

In **chapter 3; The meal experience**, it has as mentioned in the section above been chosen to initiate the theoretical study on meal and space perception on the background of the Food Scientific field. This approach has been chosen as a means to investigate if the perceptual-psychological way of thinking applied in for instance sensory and consumer evaluation tests, single-handedly clarifies the role of architecture in the meal experience. This approach involves an initiate discussion on historically as contemporary food scientific field's comprehension on the role of spatial settings impact on the eating experience. Therefore the study engages in a series of journal papers discussing the difference in eating environment to clarify how these papers on the background of empirical studies conducted both in laboratories and in restaurants, relates changing environment

>> A study on the perception of space relative to meal experiences must therefore engage with theoreticians beyond the architectural field; going back to the initiate thoughts on semiotics, phenomenology and space perception through our body and the five senses, to fully engage in the perception of architecture relative to food. <<

to consumer satisfaction, experienced values of the meal and food preferences. From the introductory chapter we know that several of these studies proved a difference in perceived satisfaction on a meal depended on eating at home, in the test laboratory or at restaurants when actually served the same food. According to the different papers this presumably was due to changes in physical environment; spatial settings, atmosphere and interior design (King et al. 2004; Edwards et al. 2003; Meiselman et al. 2000, Bell et al. 1994; Gibbons & Henry 2005) Nevertheless, as also referred to in the introductory chapter, the authors behind the published investigations on significance of the eating environment do not agree on the terms of consumer preferences. And they do not agree on whether the results are caused by free consumer choices and psychological aspects prevailing in restaurant and home environments, or if it actually is caused by the physical settings; the architecture and the interior design impacting on the perceived quality of the meal?

The theories on the aspects defining the experience of the meal put forward by respectively Korsmeyer and Meiselman in the introductory chapter do not unequivocally answer this dilemma of architecture's role. An elaborate understanding on the matter is therefore sought with the two theories on consumer choice and consumer expectations developed by Furst et al. (1996) and Delizia & MacFie (1996). Both the *Food Choice Process Model* by Furst et al. and the *Food Expectations Model* by Delizia & MacFie are based on empirical investigations on consumer choices and consumer preferences towards foods, and implicitly arrange some of the contextual and subjective aspects outlined by Meiselman and Korsmeyer in two conceptual models. Both models seek in a more precise manner to clarify the process and background of the good meal experience. By the study of respectively the Food Expectations Model and the Food Process Choice Model, I as such seek to concretise the relationship of the B,H,C,T,Q,P- factors and the physiological, psychological, nutritional, anthropological, sociological, culinary and contextual dimensions suggested by Korsmeyer and Meiselman into a theoretical conceptual model, potentially defining the role of architecture in the meal experience.

With **chapter 4; Space perception**, a further encircling on the perception of space and form from a phenomenological and semiotic point of view is sought as an elaboration of the food scientific approach towards the role of architecture. As referred to previously, especially the two architects Rasmussen and Pallasmaa profoundly elaborate on the sensuous perception of architecture through sensations of form, texture, light/shadow, colour, sound, mass, rhythm, and scale. And both architects indirectly advocate for the close bodily relation to- and the reading of architecture through one's sense modalities. (Rasmussen 1962; Pallasmaa 1996) With the initiate discussion of this chapter it was, however, found that neither Rasmussen nor Pallasmaa achieve an elaborate theoretical rooting with their writings, but rather basically presents a stand towards architecture as a phenomena encountered

and experienced with the body and the senses. A more thorough understanding on space perception, engaging in the understanding of the senses and theories beyond the architectural field was as such needed to study the role of architecture in the meal experience.

The enrolment of the body as a centre for perception of the world and the multi-sensory experience of space is something Pallasmaa inherits from among others the phenomenologist Maurice Merleau-Ponty and the anthropologist Edward T. Hall. Both Merleau-Ponty and Hall have been writing about the bodily relation to space and space perception in their works; *Phenomenology of the body* and *The hidden dimension*. (Merleau-Ponty 1994; Hall 1966) Whereas Pallasmaa is the only one directly concerned with the bodily relation to architectural space Hall and Merleau-Ponty are more generally concerned with the anthropological and philosophical point of views, engaging in the perception of space prior to any understandings of the role of architecture. With his anthropological background Hall elaborates more on *how* we perceive and experience the world through our five senses. Whereas Merleau-Ponty with his philosophical rooting focuses on *why* we perceive the world and the significance of the body in relation hereto. Connecting the perspectives of respectively Hall and Merleau-Ponty and tying them together by use of Pallasmaa and Rasmussen's sensuous notions on architectural experience, I find it is possible to go from an overall level of understanding on space perception into a more elaborate and refined consideration on the role of architecture in meal experiences than potentially put forward by the food scientific conceptually models.

Phenomenology is as emphasised earlier, nevertheless, only one among several other approaches towards understanding architecture and space perception, and perhaps lacks the full ability to understand built form as an object of contemporary time and culture. Mo emphasised besides the phenomenological approach the significance of the semiotic reading of space and form as an answer to this insufficiency (Mo 2003:91). Within the semiotic field especially two persons stand out as relevant for a study on architecture's role and how to stage the meal experience. These are respectively French writer and semiotician Roland Barthes, and Italian writer and semiotician Umberto Eco. Both Barthes and Eco have with their writings; *Mythologies* and *Function and Sign-the semiotics of architecture*, touched upon the architectural field from a semiotic point of view. Both of them have furthermore in their writings perhaps revealed some of the deficient aspects prevailing the phenomenological field, focusing mainly on perception and legibility of architecture and built shape through the sensuous bodily experience, ignoring the significance of shape as culturally rooted signs. (Leach 1997:164; Barthes 1996; Eco 1968)

Barthes with his notion on objects enrolled in mythologies approaches the semiotic field with an understanding of phenomena as a result of cultural and historical discourses, primarily focussing on the unveiling

>> *The field of semiotics to me gives an interesting perspective on the understanding of shape in addition to the phenomenological approach, as the semiotic reading by means of Barthes and Eco elaborates on the importance of awareness and consciousness on shapes as signs; shape as representatives of an inherited meaning and knowledge of contextual relations, and the importance of architectural detailing as part of this.* <<

of the true intention behind any such phenomena or object. (Barthes 1996) Eco on the other hand seeks a more direct and elaborate understanding of architecture as a semiotic sign, and endeavours the field of built form on the basis of the inherited function. (Eco 1968) The field of semiotics gives to me an interesting perspective on the understanding of shape in addition to the phenomenological approach, as the semiotic reading by means of Barthes and Eco elaborates on the importance of awareness and consciousness on shapes as signs. Shape as representatives of an inherited meaning and knowledge of contextual relations, and the importance of architectural detailing as part of this.

Leaning on Barthes' and Eco's perspectives on the understanding of architecture as signs, chapter 4 therefore focuses on the elaborate understanding of architectural means used to communicate an architectural idea and specific experience. This not just through a phenomenological perception of space, but through an understanding of the connotative importance of tableware and interior design in relation to the deeper comprehension of space and its impact on the act of eating. However, as neither the phenomenological nor semiotic theoreticians directly approaches the interrelated field of architecture and food I arrive at a problem; how to clarify and apply the values of these theoretical considerations on phenomenology and semiotics on the meal experience?

The Danish philosopher Frederik Stjernfelt elaborates on Barthes approach towards understanding food in a cultural manner, and asks in his article: *En duft af jeg ved ikke hvad*, (a scent of I do not know what?, red.) if it is actually possible to outline a semiology of food? (Stjernfelt 1987:39) Stjernfelt argues that the meal already contains a structure and time line as it is often divided into starters, main course and desserts of certain elements and categories. And as so the dinner initially should seem easy to apply to the system of semiology. Nevertheless seeking to enrol the food in such a system induces the risk of interpreting all the intentions, elements and actions as one similar thing, not being able to discern the refinements of a meal according to Stjernfelt. (Stjernfelt 1987:39)

Furthermore Stjernfelt emphasises that neither the phenomenological nor historical interpretation of the meal are suitable in their current state as scientific fields to approach the semiotic understanding of the meal, as they both adopt the classical perception of the world in an isolated manner distinguishing between mind and body, and natural and human sciences. (Stjernfelt 1987:40) Exactly this emphasises my problem on the implementation of the interrelated theory on the meal experience.

As an answer to the problem Stjernfelt proposes a semiotic trick; to focus on the discourses of the world, focus on the cookery books, menu cards, and food magazines – the aesthetic surroundings, as means to understand the interrelations of the perception phenomenological qualities, aesthetic qualities and socio-cultural values of the meal.

(Stjernfelt 1987:40)

Inspired by this semiotic trick and the approach of Stjernfelt, I find it important to supplement the theoretical study with a case study illustrating the considerations and perspectives put forward by Pallasmaa, Hall, Merleau-Ponty, Barthes and Eco by examples of specific meal situations uniting food and architecture in scales of room, table and plate.

In **chapter 5; Architectural Staging, a case study**, I therefore seek to elaborate on the previous chapter's deduction on architectural significance as staging expressed with the interrelation of phenomenology and semiotics. My intention behind this is the purpose of further encircling the role of architecture in the meal experience. This through a focus on the discourse of the eating environment; the interrelationship of aesthetic and cultural values expressed through time, context, place, room, interior design, tableware, and food.

My approach has been a case study, analysing and elaborating on two experimental eating environments in a European context, selected for their unique meal situations expressed through the staging of architectural space and the involvement of furniture and interior design in the experience of the festive meals taking place.

These two cases presents respectively an epochal dinner served by the Roman Emperors at Villa Hadrian near Tivoli in Rome, Italy (118 AD), - and a contemporary, very controversial restaurant dinner served at Madeleine's Madteater in Copenhagen, Denmark (2007 AD). These two cases has specifically been selected with the main intention of endeavouring an understanding of the relations between architecture and food. Examining how architecture during history as well as today, intentionally is being used to stage public meals through space and rituals, and what can be learned from these eating environments in relation to the future development of a design proposal for a Millennium Triclinium for Figgjo.

Furthermore the case of Villa Hadrian represents an epoch of both architecture and philosophy of science which we still today are highly influenced by in our modern comprehension of art and science. Within the culinary field a similar claim exists advocating that Roman cuisine of the antique period, later with the Medici-family¹¹ formed both the contemporary famous Italian and French cuisine. (Hannestad 1979:7) As why it becomes much more interesting to depict the differences and progresses between Villa Hadrian and Madeleines, as these two cases represents outer extremities in history and further unifies architectural, cultural, and culinary significance.

The epochal dinner in the case of Villa Hadrian is nevertheless fictive, reconstructed from a hermeneutic reading of history books, historical drawings, and pictures. Opposed to the dinner at Madeleine's Madteater which actually could be attended during the autumn of 2007 at the restaurant. This dinner is reconstructed through a visit

>> Inspired by this semiotic trick and the approach of Stjernfelt, I find it important to supplement the theoretical study with a case study illustrating the considerations and perspectives put forth by Pallasmaa, Hall, Merleau-Ponty, Barthes and Eco, through examples of specific meal situations uniting food and architecture in scales of both room, table, and plate. <<

at Madeleine's (though not eating!) and a lecture held by the owner Nicolai Danielsen, as well as restaurant reviews on the specific dinner performance.

In the reconstruction of the dinner at Villa Hadrian, the book; *Mad og drikke i det antikke Rom* (Food and drinking in antique Rome, red.), written by Master of classical archaeology Lise Hannestad was primarily used, together with drawings and notations done on excavations conducted at Villa Hadrian during the 1950s and 1970s. Hannestad has with her book thoroughly investigated the matters of both food and spaces compromising the settings of the Roman meal among the higher social classes in Rome during the first two centuries of our time line (0 - 200 AD). Hannestad bases her analytic observations on translations of old Roman writings as well as a grand amount of archaeological sources; excavations of kitchens, kitchen utensils, dinning rooms, interior, carbonized food, wall-paintings and mosaic-floors depicting table arrangements and food servings. (Hannestad, 1979:7-8) The two selected cases should therefore merely be seen as representatives of a certain way of working with architectural staging in relation to the presentation of public meals, in a specific time and specific architectural setting, than two specific eating situations ever realised.

The structure of the comparative study, on respectively Villa Hadrian and Madeleine's Madteater, is based on the analytic model; *Arkitektur som rum og ramme*, (Architecture as space and frame, red.) formulated by Danish art historian Lise Bek. (Bek & Oxvig 1999). Bek comprehends, as previously referred to, space in line with the notion of architecture as staging not only as an aesthetic matter expressed through physical shape but as a cultural framework embracing human living and being-in-the-world. Thus enrolling the perception of architecture in a realm of understanding involving both phenomenological, semiotic, functional-technical, and socio-cultural aspects. (Bek & Oxvig 1999:24) Bek's main point is that architectural space is a phenomena shaped by varying conditions expressed through its contemporary time and society. She advocates that the essence of understanding architecture therefore is identifying the superior intention of the space, understanding space as a part of the place and time it is a product of. On the basis of this perspective Bek outlines two main perspectives; *the material-prevailing* and *the historic-source related*, as the background for her analysis. These two perspectives are further unfolded in a systematic reading of architectural space through five main aspects being; *the aspect of shape, the practical-functional aspect, the scenographic-social aspect, the iconographic-intentional aspect* and *the visual-perceptual aspect*. (Bek & Oxvig 1999:26-28)

However, Bek is an art historian and this is perhaps why the analytic model only vaguely touches upon some of the phenomenological significances outlined with the theoretical study in chapter 4, or the architectural design approach expressed through technique

and construction. Pallasmaa, Rasmussen, Hall and Merleau-Ponty emphasises the bodily perception of space, especially perceived through the lower sense; movement, touch, and smell. Whereas Bek merely seems to focus on the visual-intentional aspect of shape and despite her emphasis on the functional importance of architecture seeks to inscribe space in an artistic and historical perspective. Furthermore especially Pallasmaa and Rasmussen in their direct interest in the perception of architectural space emphasises the importance of detailing, expressed through both technique, material and construction. (Pallasmaa 1996:21; Rasmussen 1969:162) Thus implying the importance of the design process and considerations on function and technique relative to aesthetic expression. Function and expression are considerations of Bek, but technique and construction, as means to erect the building and practically make it work are of no interest to her unless they are part of a visual-intentional purpose. One could argue that technique and construction always will be part of an architectural intention and that Bek as such have it covered in her analytic model. However, my contention is that Bek's analysis needs to be extended to fully understand the substance of architecture, and purposes to do it by means of the aspects initiatory outlined in the investigation of architecture's role in the meal experience throughout history, and the notion on architecture as staging in chapter 1.

With the historic outline and the study of epochal restaurants especially the importance of the dinner narrative; the staging of the meal through spatial means, interior décor and tableware was outlined and presented as an important aspect of communicating social affiliations and prosperity. The historic study show how this, for instance during the Medieval times and the Renaissance period, directly evolved into grand sceneries of tableware display or theatrical meals, staging the entire feast through architecture and live performances. Furthermore the study on epochal restaurants elaborated on the qualities of detailing and bodily relations, and with the proposal by Jacobsen and Loos we saw how detailing in material, texture, patterns, light and careful considerations in scales of room, furniture and tableware were significant for the overall experience. Besides this an understanding of the contemporary time, techniques and materials where very important aspects of the atmosphere communicated both with the two Art Nouveau restaurants Vagenende and Julien, as well as the modern restaurant Georges, which further revealed aspects of the importance of the architectural design process through the use of digital media. Hence, several aspects intuitively noted with the historic study and the restaurant examples lacks a further elaboration in Beks analysis, and it therefore initiates following proposal for an extend outline of an analysis of respectively Villa Hadrian and Madeleines Madteater:

- . **Context**
- . **Dinner course (narrative)**
- . **Analysis by Bek + considerations on technique and detailing**
- . **Significance**

>> Chapter 6 should be considered a summary of the theoretical study carried out through the first part of present report and has the specific focus of formulating a design strategy, emphasising the role of architecture in the display of Figgjo's newest tableware and staging specific eating experiences during trade fairs and food events. <<

Arriving at **chapter 6; Millennium Triclinium**, I on the background of the five previous chapters finally seek to be able to define the role of architecture in the meal experience and implement the notion on architecture as staging in a design proposal the Millennium Triclinium for Figgjo. The present chapter should as such be considered a summary of the theoretical study carried out through the first part of present report and has the specific focus of formulating a design strategy, emphasising the role of architecture in the display of Figgjo's newest tableware and specific eating experiences during trade fairs and food events.

With the notion on architecture as staging and the significance of shape as connotative sign and bodily perceptual matter, it was with the theoretical study emphasised that the perception of food and architecture relates not only to the visual sense but further engage with more sensuous parts of our bodies. Involving especially the lower senses of movement, texture, taste, and smell. With the case study it was furthermore seen how these bodily aspects correlated and intentionally used through architectural detailing and shape as connotative signs are able to form distinct meals experiences playing on past memories rooted in both our bodies and minds, forming a sense of being-in-the-world. The design strategy for the Millennium Triclinium in relation to this is formulated on the basis of the architectural qualities and significant architectural means encircled and discovered throughout the theoretical part, underlying the notion of architecture as staging and proposing to engage in the design proposal by following five focal points:

- . **Context (scenarios, users, purpose)**
- . **Narrative (intention, course, surprise)**
- . **Scale (landscape, building, room, furniture, tableware, food)**
- . **Detail (form, technique, significance)**
- . **Experience (movement, touch, scent, taste, sound, sight, surprise)**

Ending the theoretical part with chapter 6, the design part afterwards introduces the development of the actual design proposal for the Millennium Triclinium. Here it is outlined how I actually relate the architectural and culinary space by implementing the above five parameters, as design tools and methods of design to enhance the experience of Figgjo tableware. Part of this is furthermore the presentation of an elaborate analysis of Figgjo, their design strategy and newest product lines; Figgjo Front and Figgjo Front Dining, this can be read in the Appendix A1, page 290. Finally an overview on the development on the design phases; concept, shape, structure, texture, and detail is given in relation to a detailed presentation on the specific proposal for the Millennium Triclinium, as well as the whole thesis is rounded off with a conclusion and an evaluating perspective presenting some considerations made on potential future work and projects within the field of food and architecture.

CHAPTER OUTLINE:

Chapter 3: "THE MEAL EXPERIENCE"

- Food choice Process Model
- Food Expectations Model



Chapter 4: "Space Perception"

- Pallasmaa, "Eyes of the skin"
- Merleau-Ponty, "Phenomenology of the body"
- Hall, "The hidden dimension"
- Eco, "Function & Sign"
- Barthes, "Mythologies"



Chapter 5: "Case study"

- Hadrian's Villa, 118 AD
- Madeleine's Madteater, 2007 AD



Chapter 6: "Millennium Triclinium"

- Summary
- DESIGN STRATEGY!!!

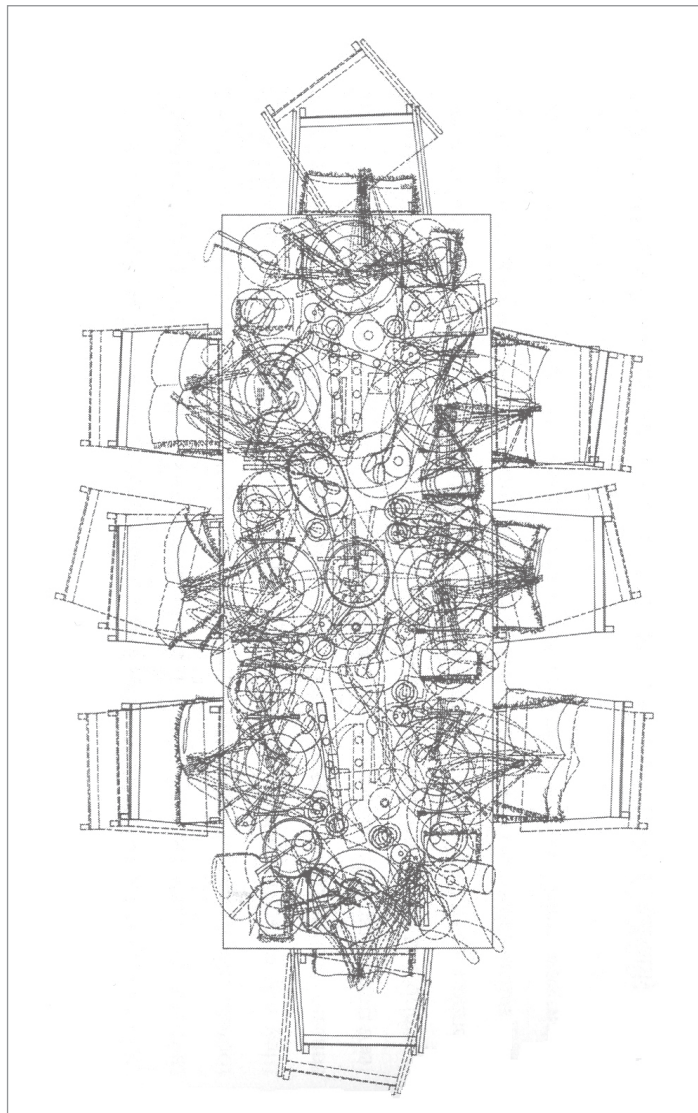


Fig. 3.0

*Use begins to undermine
the apparent stability of the
(architectural) order. Traces
of occupation in time. The
recognition of life's disorder.*

*By Sarah Wigglesworth
Architects, London.
(Horwitz & Singley, 2004:12)*

Chapter 3 THE MEAL

THE MEAL EXPERIENCE

Following the historic outline and the initiate restaurant study the purpose of present chapter has been to encircle aspects determining the meal experience and the perception of good food from a food scientific point of view. This approach has been chosen as basis for the further theoretical study on architecture as staging, and as a means to encircle if architecture plays a role in the food experience at all from a positivist, empirical rooted point of view.

When approaching the food scientific field several different areas can be engaged. However, the specific areas of interest for this project has been the direct consumer related fields as *sensory science*, *food evaluation* and *consumer behaviour*. Those fields directly engage in investigations upon food perception and meal experiences through food evaluation tests and empirical studies performed in restaurants, food test laboratories or home environments (Meiselman 2000). The intention of sensory evaluation techniques were to establishing a lawful and specific relationship between product characteristics and human perception, and are perhaps still today considered highly reliable data on the relations between experiencing food and the comprehension of the user. As why, it is very interesting to examine this field's comprehension of the spatial setting's role in the meal experience with the architectural theoretical comprehension which in its nature is much more interpreting and hermeneutically rooted. As further referred to in the introductory chapter the food scientific field with respect to sensory science and consumer behaviour has during the years published several journal papers regarding the subjects of spatial environments influence on consumer preference and food experience. It becomes important for an understanding of the relation between food and architecture from the perspective of the diner.

The investigation is based on an unfolding of the two meal theories by respectively Korsmeyer and Meiselman presented in the introductory chapter. This unfolding is done by use of two consumer related models; *The Food Choice Process Model* and *the Food Expectations Model*, formulated by Furst et al. (1996) and Delizia & MacFie (1996), as well as an outline of journal papers treating the subject of spatial impacts on food preferences. (Korsmeyer 1999; Meiselman 2000; Furst et al. 1996; Delizia & MacFie 1996)

With the outline on perception of the good meal experience and its underlying aspects by use of consumer choice and consumer preference, it has been my intention to develop an initiate understanding of architectures significance in the meal experience on behalf of the user's, the diner's and the consumer's point of view. Furthermore is has been my intention to examine if the food scientific field and its comprehension on perceptual-psychology as a means to understand food perception gives an answer to the role of architecture in the meal experience, or if further studies in terms of architectural theory

>> *The intention of sensory evaluation techniques were to establishing a lawful and specific relationship between product characteristics and human perception, and are still today considered highly reliable data on the relations between experiencing food and the comprehension of the diner. As why, it is very interesting to examine and compare this fields' comprehension of the spatial and environmental settings role in the meal experience with the architectural theory.* <<

is needed in a theoretical discussion on the notion of architecture as staging of meal experiences?

Food evaluation and Sensory Science

Sensory Science is defined as a scientific method used to evoke, measure, analyze, and interpret responses to products perceived through the senses of sight, smell, touch, taste, and hearing. Sensory Science was only recently developed as a formalized, structured and codified methodology within scientific research fields, and the principal uses of sensory techniques are usually; *quality control*, *product development*, and *research* within the food related business. However the field finds its application not only in characterisation and evaluation of food and beverages, but also in other fields as environmental odours, personal hygiene products, diagnosis of illness, testing of pure chemical etc. The primary function of sensory testing is thereby to conduct valid and reliable user tests that provide data on which sound decisions can be made for further development and research. (Lawless & Heyman 1999:2; Meilgaard 2007:2)

The interest of environmental and spatial impact on the food experience within the research area of sensory evaluation especially developed around the 1940s, due to a rapid growth in food companies and their increasing interest in consumer research. At that time sensory evaluation techniques encompassed various methods for accurate measurement of human responses to food and minimising potential bias from environments affecting consumer perception. Those methods involved among others panel tests, which were performed under strictly controlled laboratory conditions, where environmental factors as; light, humidity, colours, interior design, tableware, utensils, and labelling of products was kept as neutral as possible, -often expressed through the use of plastics and the colour white. (Lawless & Heymann 1998:1,20)

The established methods of sensory evaluation drew heavily on knowledge and techniques of behavioural research in observing and quantifying human responses into numerical data, and guidelines for preparation and serving of samples under controlled conditions were developed to minimise biasing factors. (Lawless & Heymann 1999:2) However, during the 1970s and 1980s an increasing interest on consumer testing in realistic eating situations contrary to laboratory panel tests developed, as a result of growing discontentedness with validity and generalisability on laboratory results to real-world scenarios. In panel tests artificial meals rather than real meals were evaluated according to predetermined sensory aspects, deliberately ignoring food products as part of overall contextual patterns, and the influences of abnormal eating situations. In relation to this, Meiselman with both

his journal papers and his book; *Dimensions of the Meal*, criticises the laboratory test for emphasising sensory and physiological factors rather than social, psychological, cultural and environmental factors, and therefore proposes to focus more on research on real consumers in real food and eating situations, than panel tests. A tendency within several of the literature reviewed journals show accordance with this, and during the 1990s food acceptance tests are in a greater manner conducted in real eating environments contrary to laboratory tests. (Meiselman 2000:34,35; Jensen & Hansen 2007; Kivela et al. 1999A,B; Bell et al. 1994; King et al. 2004; King et al. 2007; Edwards et al. 2003; Weber et al. 2004; Cardello 1994; Meiselman et al. 2000; Cardello et al. 2000; Gibbons & Henry 2005)

Shape as objective variable

Characteristic for these empirical approaches are, however, that most of the investigations have been accomplished by a general understanding of surrounding environment as a objective variable. Meaning that in their understanding of spatial environment most of the surveys differ in overall styles of interior and décor, but do not pay further attention to the specific meaning of interior design or architectural space and the inherited meaning and effect of spatial settings on the overall food experience. An example of this is for instance the survey conducted by King et al., who in the paper; *The effects of contextual variables on food acceptability - a confirmatory study*, with their underlying survey indirectly assume that the term “*Italian style décor*”, represents the same spatial arrangement and architectural experience within forty different restaurants, due to their affiliation within the same business chain. The correlated affiliation causes King et al. to finally conclude that interior design and spatial environment plays no greater role in the food acceptance, but that instead the detected difference in food preferences is a matter of freedom in consumer choice. (King et al., 2007:59)

From an architectural point of view it is rather tempting to question the approach and conclusion of King et al., and ask whether the test results reflect the true state of the world? *Is the data as valid and reliable as the sensory scientific research field aims at? Is it valid to assume architectural space as an objective variable, and define spatial perception as identical across forty different places, based on an overall style or décor theme like in the present survey?*

>> *Is it valid to assume architectural space, interior décor and furniture to be objective variables not playing any greater impact in the experience and acceptance of food?* <<

The previous chapters of method and strategy, as well as the initiate historic and epochal restaurant study pointed towards architectural theory as phenomenology and semiotics in the understanding of space perception and emphasised the unique experience of each place and that space and objects are enrolled in an understanding of time, place and user. Whereas such a thing as architecture as objective variable would not exists.

In his paper; *The psychology of food choice: some often encounters fallacies*, sensory scientist Egon Peter Köster pinpoints exactly this problem and the approach of King et al., where location and spatial settings are assumed to be objectively measurable context variants. Köster argues that location among others can not be seen as objectively contextual variables, but are subjective related experiences. (Köster 2003:368) In relation to this Meiselman advocates that human perceptions of foods are the result of complex sensory- and interpretations processes, and further argues that the brain lies interposed between sensory input and the generation of responses that form our data. (Meiselman 2000:16,84) Each person as such comes to a sensory evaluation task complete with a personal history and experimental frame of reference. Sensory experiences is therefore interpreted, given meaning within the frame of reference and evaluated relative to expectations, preferences, and choices, and all of this can involve integration of multiple simultaneous or sequential inputs. (Lawless & Heymann, 1999:4,14,17) Stating this, both Köster and Meiselman in my point of view arrive at an understanding relating closely to the comprehension of semiology; inscribing experienced phenomena as an object of past and present time, place and culture. And as part of this an important question furthermore becomes on what basis food acceptance is measured? What really defines the process of eating and the good food experience?

The good food experience?

The French food philosopher Jean Anthelme Brillat-Savarin¹² writes in his book; *The physiology of taste, or meditations on transcendental gastronomy*, in his aphorisms no. IV; "Tell me what you eat, and I shall tell you what you are" (Brillat-Savarin, 1949:3). This aphorism has in present time often been rewritten into the less poetic; *you are what you eat*, not only referring to the physical looks adopted by food habits and bad nutrition, but also to the identity one obtains and communicate through the choice of food eaten.

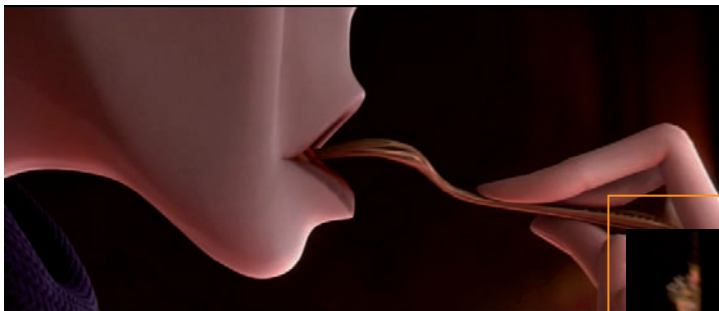
>> *The food experience is not just a matter of getting the appropriate amount of nutritional food, vitamins, and being satiated physiological, but as much about social satisfaction and enrolling oneself in a community, showing or articulating a sense of belonging through food choices.* <<

The food experience is as such not just a matter of getting the appropriate amount of nutritional food, vitamins and being satiated physiologically, but as much about social satisfaction and enrolling oneself in a community; showing a sense of belonging through food choices. (Meiselman 2000:24,25) This comprehension of the eating situation as a cultural matter has from a sociological point of view drawn much attention, and the German sociologist George Simmel is one of the researchers engaging in the discourse of food. Simmel writes in his essay; *Sociology of the meal*, about the human physiological instinct to eat and the sociable gathering around the table, and argues that exactly such a primordial and deeply rooted instinct is probably what makes it possible for us as humans to gather around a common meal in the first place.

"EVALUATING"



"TASTING"



"REMEMBERING"



"ENJOYING"



Fig. 3.1

The Meal Experience

Each person comes to a sensory evaluation task or dinner, complete with a personal history and experimental frame of reference. Sensory experiences is therefore interpreted, given meaning within the frame of reference and evaluated relative to expectations, preferences, and choices, and all of this can involve integration of multiple simultaneous or sequential inputs. As part of this, memory becomes an important aspect in a tick of time taking you back to past experiences by a sense of touch, taste or smell. (Pictures from "Ratatouilli" by Disney, 2007)

>> Gastronomy and food become a bridge in time, able to trigger forgotten or hidden memories on a tick of time... the Danish food theatre Madeleines exploit exactly this ability to use food as a bridge in time to provide extraordinary food experiences. <<

The meal is habitually situated, it is a social act creating a community around it; a community which is not just common in satisfying mans hunger, but further more an event celebrating the sharing of identical tastes; both in food and in the manners of eating. (Simmel 1997:137)

The meaning of the meal thereby spreads beyond the gustatory taste and nutritional values and reaches far into social values, reflecting the current social scene; the family, the lovers, the business meeting, or the colleague dinner, as also seen by the history review where the festive banquets where manners of expressing social affiliation and society status (see page 35).

The community formed around the table varies, depending on the inherited relationship among the diners, but even mutual disdained persons are in many cultures due to meal rituals and eating norms forced to settle in the eating community, and with good and enjoyable meals a special bond can even be tied among the mutual diners due to the community spirit emerging. (Boll-Johansen 2003:40,77,82; Simmel 1997:137) The meal becomes a social frame and represents a dream; *an utopia on the good life*. Behind any cookbook lies a hidden history of foods role in society; dreams of the good food one would like to cook, the person one would like to be, the family one would like to gather around the table; fantasies and hopes for the future, and memories of the past. (Boll-Johansen, 2003:7,17)

Gastronomy becomes a bridge in time, able to trigger forgotten or hidden old memories on a tick of time.

This is seen for instance with the story of Marcel Proust; *Remembrance of things past* (see Appendix A2, page 298), referred to in the introductory chapter, where the Danish food theatre Madeleines exploit exactly this ability to use food as a bridge in time to provide extraordinary food experiences (see page 144). Meiselman elaborates on the retrospective meals, and argues;

We all remember special meals, either because of their very high or low culinary quality, their unusual nature, or important non-culinary events that occurred at the meal; first dates, proposals of marriage and the like. (Meiselman 2000:25)

On the basis of this he asks himself what is the relation between the memorial representation of the meal and the actual experience of the meal presently eaten? A highly relevant question in the understanding of what motivates consumer choices Meiselman argues. But in my case also an understanding of what completes the exclusive dinner performance given at Madeleines?

Meiselman advocates that the present food choices we are making are based on our memories of relevant past experiences with the same or similar food and most importantly the social context this food was a part of; not our actual experience with food. And insofar the memories

differ from the actual experience, it is the memories that become most important and relevant for the consumer choice and following meal experience. (Meiselman 2000:26) To fully understand this it is possible to turn towards consumer science, engaging in the two conceptual models put forward by Furst et al. and Delizia & MacFie exactly treating the subject of consumer choice and consumer expectations. (Furst et al. 1996; Delizia & MacFie 1996)

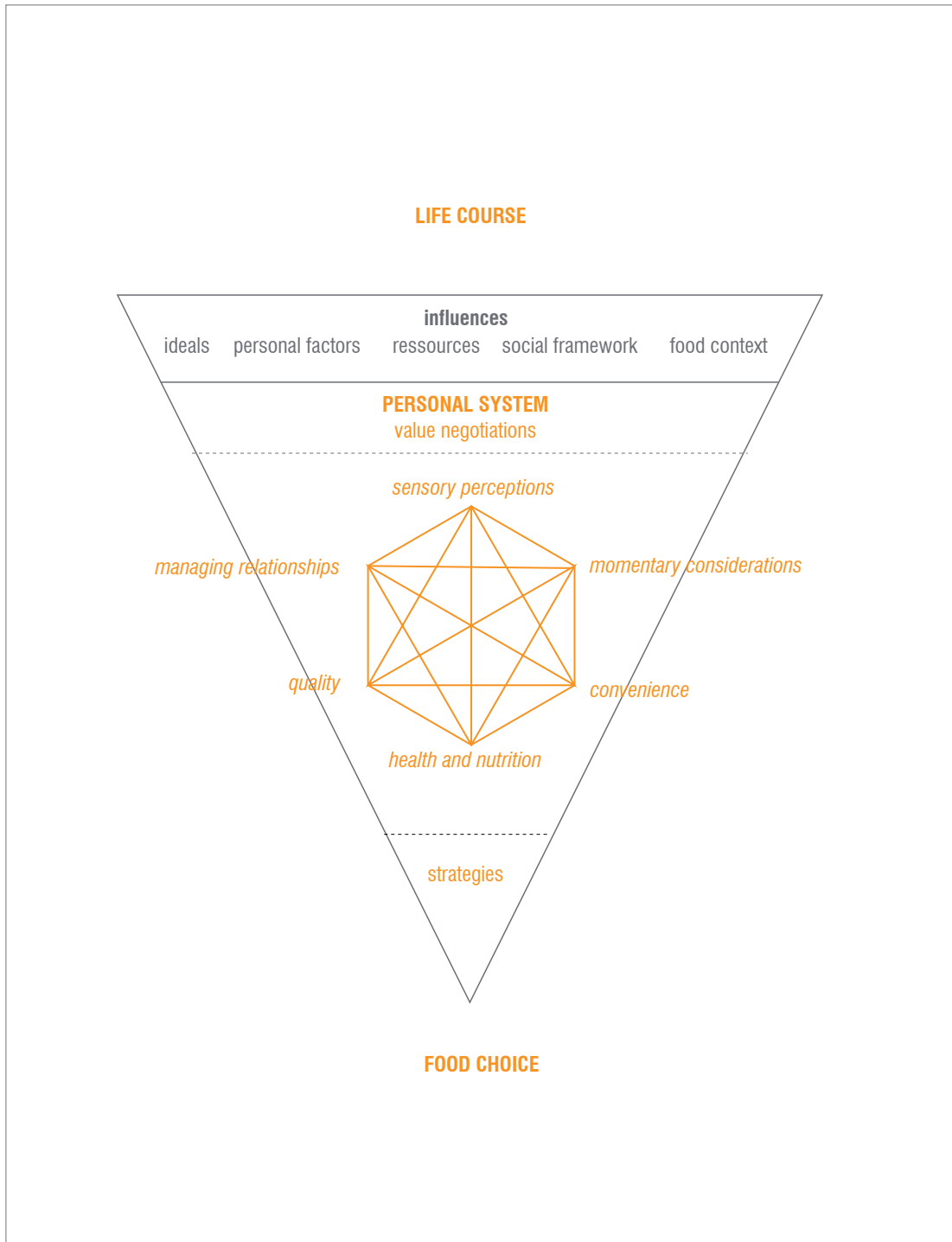
Consumer choice and Satisfaction Theories

With the Food Choice Process Model developed by Furst et al. (1996) and the Food Expectations Model by Delizia & MacFie (1996) it is sought to explain the impacting factors on food satisfaction and consumer choice on the basis of the psychological, physiological and sociological aspects prevailing the final choice and experience. Memory, cultural values and norms are important aspects of these and the purpose of the models has been to provide a theoretical framework for research and practice within the food industry. Both models seek to describe the complicated aspects interfering with the overall experience of food products, further outlining the more psychological and socially rooted dimensions determining the consumer choices and levels of satisfaction. (Furst et al. 1996:247, Delizia & MacFie 1996) Furst et al. bases their model on a qualitative method where a larger group of adult consumers were interviewed and in their own words describing incentives for their food choices. The model, on the basis of this, describes a dynamic set of processes outlining the background for food choices made, and includes three major components operating together; *life course*, *influences* and *personal systems* as determinants for the final food choice. (Furst et al. 1996:247,250)

According to Furst et al. the consumer life course (*past food memories, historical eras, current involvement in trends, transitions and anticipation of future events*) and the influencing aspects of ideals (*expectations, standards, hopes and beliefs*), personal factors (*needs, preferences and emotional cues*), resources (*money, equipment, space*), social framework (*relationship, family, affiliation*), and food context (*physical surroundings, convenience, climate*) to a great extent affect food choices and make it an object of automatic, habitual and subconscious decisions (see figure 3.2). Life course and influential aspects forms the development of the personal system, constituting an ever negotiating value system based on sensory perceptions, monetary considerations, quality of food choice decisions, social relationships, convenience, health and nutrition beliefs, and concerns which finally leads to individual constructed strategies towards food choices. Naturally some factors within the negotional value systems are rated higher than others, differing from consumer to consumer. And the process within such a personal system is very dynamic while the resulting strategies presumably are more routine. (Furst et al. 1996:247,251,255; Sobal et al. 2006) The conceptual model by Furst et al. seeks to describe and illustrate

Fig. 3.2

Food Choice Process Model
Conceptual model of food choice process, illustrating the importance of a dynamic value negotiation system and strategies made between life course, influences and personal system as background for individual food choices. Here past memories, contemporary trends, social affiliation and personal dreams become important aspects of the food choices made both in grocery stores and restaurants. (Furst et al. 1996:251)



some of the meal aspects implied both by sociologist George Simmel, and the two theoreticians Kormsmeier and Meiselman presented in the previous sections. The cultural and socially rooted importance of how we understanding food and eating, expressed through social norms and values, past food memories as well as affiliations to different cultures or groups are what both Kormsmeier and Meiselman elaborates on in their theories on the meal experience, when they speak of respectively C, O, P-factors and psychological, anthropological and sociological dimensions influencing the perception of food. (Kormsmeier 1999:98; Meiselman 2000:2)

Whereas Kormsmeier in her book; *Making sense of Taste*, however, thoroughly describes the eating experience by the six B,H,C,T,O,P-factors as a model of understanding impacts on the subjective perception on eating, *the Food Choice Process Model* developed by Furst et al., seeks to express the importance of subjective preferences, identities and cultural background both conscious and unconscious affects consumer choices on food. (Kormsmeier 1999:98; Furst et al. 1996:251).

Predicting consumer food choice is very difficult, but both Kormsmeier and Furst et al. thoroughly seeks to describe what determines the food experience through a wide range of impacting aspects. However, none of them give the answer as to when or how the food experience is perceived good or bad, nor clarifies on which terms the value negotiation among the different impacting aspects leads to the final choice. This on the other hand, is a matter discussed by Deliza & MacFie with the conceptual model on *Food Expectations*. (Delizia & MacFie 1996)

The Food Expectation Model developed by Deliza & MacFie seeks in relation to *the Food Choice Process Model* by Furst et al. to clarify the coupling of food choice with the importance of product expectations. According to Deliza & MacFie expectations as part of the value negation system play a great role in the choices we as consumers make towards food and eating. And with their flowchart model (see figure 3.3) on the role of expectations on consumer food choice, they seek to describe how the good meal experience is perceived as a result of the dynamic process of food choices made, based on prior sensory expectations and past product satisfaction.(Deliza & MacFie, 1996:103) The upper part of the flowchart describes the role of expectations on specific food product choices, clarifying how past product experiences together with current product appearance (*product information, labeling, package, ads and prices*) experienced through sensory perception leads to an overall expectation towards the forthcoming product experience. The lower part of the flowchart describes the actual product use or consequences of either expectation confirmation (satisfaction) or expectation disconfirmation (product rejection) in relation to the product experience. Depending on these prior expectations and past memories of similar products leading to

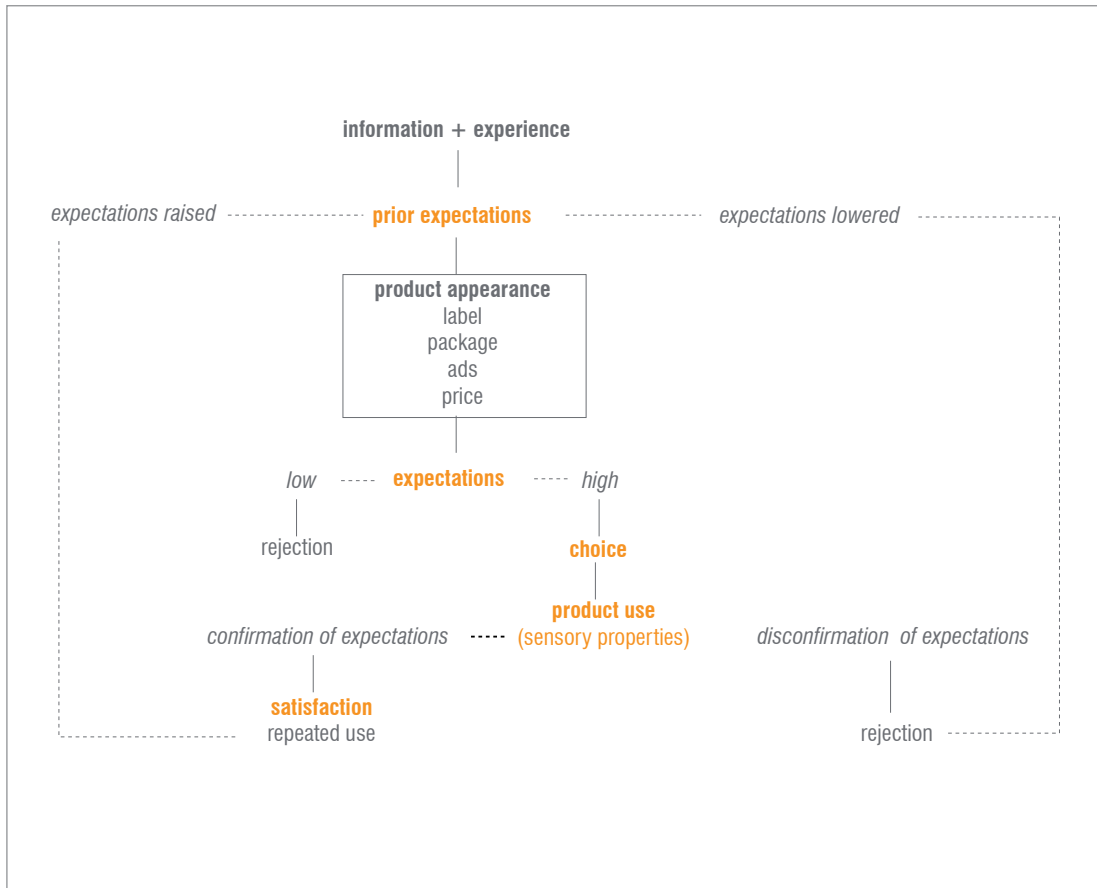


Fig. 3.3

Food Expectations Model

*Conceptual model describing the importance of prior expectations based on sensory perception of product appearance and past memories of similar food products as determining for food choices. Further more implying that fulfilment of these expectations is what leads to food satisfaction and the “good meal experience”.
(Deliza & MacFie 1996:105)*

good or bad experiences the consumer makes his food choice. And whether or not the chosen product then matches the expectations will affect the repurchase situation of similar future food choices. (Deliza & MacFie 1996:105)

What the Food Expectations Model seeks to describe in addition to the Food Choice Process Model by Furst et al., is the immediate appearance of a product or encounter with an unknown object triggers an expectation towards the forthcoming experience. Deliza & MacFie thereby makes an important elaboration on the Food Choice Process Model and partly the theory by Korschmeier and Meiselman, by suggesting a level binding the cultural, psychological, social and physiological aspects together through the idea of product expectations. These expectations are in the Food Expectations Model triggered by the immediate sensory perception of the product through brand, labels, ads or price.

When a consumer interact with products, a variety of aspects act as stimuli for the human senses, and each modality is sensitive to a different type of energy and will be stimulated by different product properties. Delizia and MacFie emphasise with the formulation of their expectation model, that product perception is highly dependent on the visual appearance; the brand, the product detail, and the symbols and words explaining the product function. Within food science a common agreement is that at further encounter with the product the other modalities become important, such as sound, smell, taste and texture when eating. In addition to the visual appearance, the other sense stimuli help the consumer decode the concerned food situation and product likeness. (Delizia & MacFie 1996:109; Schifferstein & Cleiren 2005:294) What Delizia & MacFie are suggesting with their conceptual model on food expectations is that expectations are triggered on forthcoming experiences by product appearance; by physical shape (material, colours, text, smell, texture) and aesthetic considerations on brand and communication.

>> *What Delizia & MacFie are suggesting with their conceptual model on food expectations is that expectations are triggered on forthcoming experiences by product appearance; by physical shape (material, colours, text, smell, texture) and aesthetic considerations on brand and communication.* <<

Expectations of food triggered by architecture?

When trying to measure consumer expectations towards food products or capturing food experiences, Schifferstein and Cleiren with their article; *Capturing product experiences, a split-modality approach*, proposes to measure the different sensory perceptions experiences through a three-step process; serving samples of the food product in respectively a blind test, through images of the product, and finally through a actual physical presentation of the product. (Schifferstein & Cleiren 2005:302) With this three-step method it is possible to compare the responses of the different perceptions and identify discrepancies between expectations caused by the different steps of product information given. The idea of categorizing subject feelings and experiences in this positivist manner, fundamentally contradicts the way of thinking within many of the artistic fields such as painting,

sculpturing and also architecture. Some would even claim that fitting human sensibility into strict formula and conceptual models as done with the Food Choice Process Model and the Food Expectations Model, removes all sense of aesthetics and can not be considered truly reliable as representation of human behaviour. (Mo 2003:iii)

Nevertheless, my interest has been caught. - If specific food products with their physical appearance; shape, labels, package, and brand, according to the food scientific field allures certain expectations upon the forthcoming product experience, and the comprehension of these partly determines consumer satisfaction as suggested with the model of Delizia and MacFie; could so not our spatial surroundings? And what could this notion on the role of spatial settings and form bring to our understanding of the impact of architecture on the good meal experience?



Fig. 3.4

Above; Low-cost tableware
Laying the table for a festive feast with plastic utensils.

Below; High-cost tableware
Laying the table for a festive feast with silverware, crystal and faience china.
(Politiken, 21.4.2007)

If we look at the two pictures; *the low-cost tableware* and *the high-cost tableware* (see figure 3.4), they each in the same manner as the food product presented in the expectation model by Delizia & MacFie imply a certain use and situation. Thus causing specific expectations towards which food is going to be served. One would presumably not expect to be served only a sloppy hamburger with ketchup on the exclusive tableware, but instead have ones hopes up for something more. Perhaps something more in style of a whole menu of starters, main course and dessert, due to the amount of tableware presented. If we move into a larger scale; the restaurant one could imagine how those to interior likewise, triggers two different expectations towards the forthcoming meal experience and quality of the food served.

Leaning on the conceptual model on Food Expectations put forward by Delizia & MacFie, I propose to make an extended model illustrating the potential role and impact of architecture on the meal experience (see figure 3.5). Here the immediate sensory perception of space, interior, furniture and tableware triggers expectations towards which food to be served in the restaurant. The food meeting these expectations would potentially lead to food satisfaction and a better meal experience, than spatial settings implying standards the food cant not fulfil or vice versa.

But what is it that awakes these expectations in our mind, and gives us a basis for negotiating and balancing our food choices on behalf of pure reading of shape?

To follow the line of thought put together by Delizia and MacFie with the Food Expectation Model, the perception of shape is a grasping of generic structural features. A complex system putting together perception of physical shape experienced through our sense modalities; vision, sound, touch, smell and taste. According to Schifferstein & Cleiren when people use all senses simultaneously, product experience may be dominated by one modality that receives the majority attention. – In many cases the product experience being depended on what we see. Furthermore Schifferstein and Cleiren argues that the underlying process behind the food choices and expectations put forward by Furst et al. and Delizia & MacFie is an experience including sensory perception, identification process triggering cognitive associations and activation of memories elucidating feelings and emotions, and finally bringing about evaluative judgments. (Schifferstein & Cleiren 2005:294) The perception of a food product can in a perceptual-psychological manner thereby be understood as a mixed process of understanding shape as physically perceived stimuli and the cognitive comprehension of these stimuli based on past memories and associations.

>> The perception of a food product can as such in a perceptual-psychological manner be understood as a mixed process of understanding shape as physically perceived stimuli and the cognitive comprehension of these stimuli based on past memories and associations. <<

However, if we look at the conceptual model illustrating the proposed role of architecture in the meal experience (figure 3.5) – or for that matter the conceptual model developed by Delizia & MACFie (figure

3.3), I feel a step or level of understanding is lacking in the perceptual-psychological explanation by Schifferstein & Cleiren. Because the food scientific, perceptual-psychological explanation lacks the higher ability to understand architecture and product appearance as an object of culture, time and place communicating sensory values and aesthetic significance, as outlined with the historic review and the epochal restaurants studied in chapter 1.

With the history outline and the epochal restaurant study, perception of space as experienced through our senses and read as connotative objects communicating social affiliation and status, pointed towards an understanding of shape and space as a mixed process of physically perceived stimuli and reading of signs. Hence, forming an inherited understanding of architectural quality on the basis of phenomenology and semiology.

In my opinion this comprehension in addition to the psychological and contextual aspects of consumer choice and expectations is what determine whether we link good food with the cardboard plate or the exclusive china. As why, to fully understand the role of architecture in the meal experience and to be able to state why and how architecture becomes important for the staging of the meal, we need to look into the theory of phenomenology and semiotics after all.

Fig. 3.5

The role of Architecture?

Leaning on the conceptual model on food expectations by Delizia & MacFie, could the impact and role of architecture on the meal experience then be the triggering of expectations towards the forthcoming meal experience, by sensory perception of form, room, interior décor, furniture and tableware?

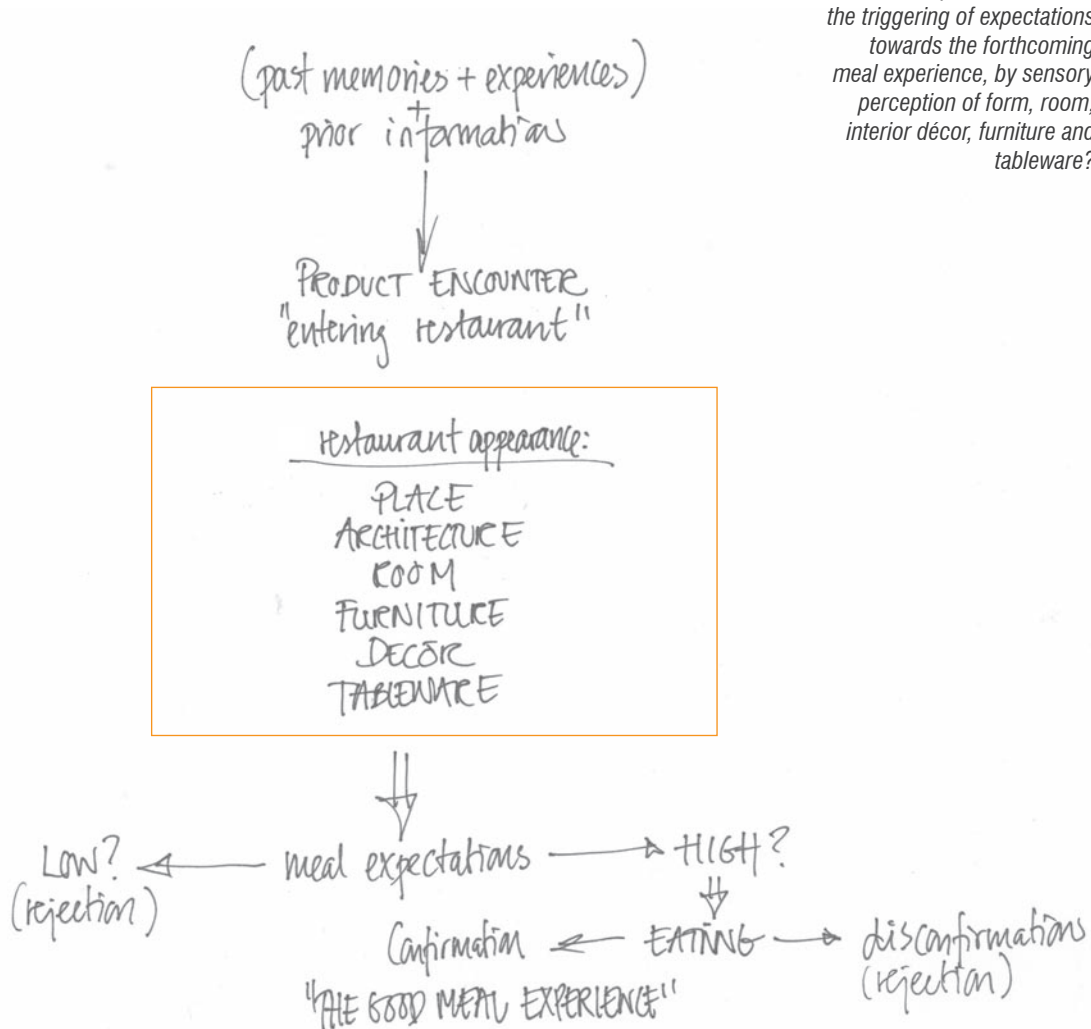
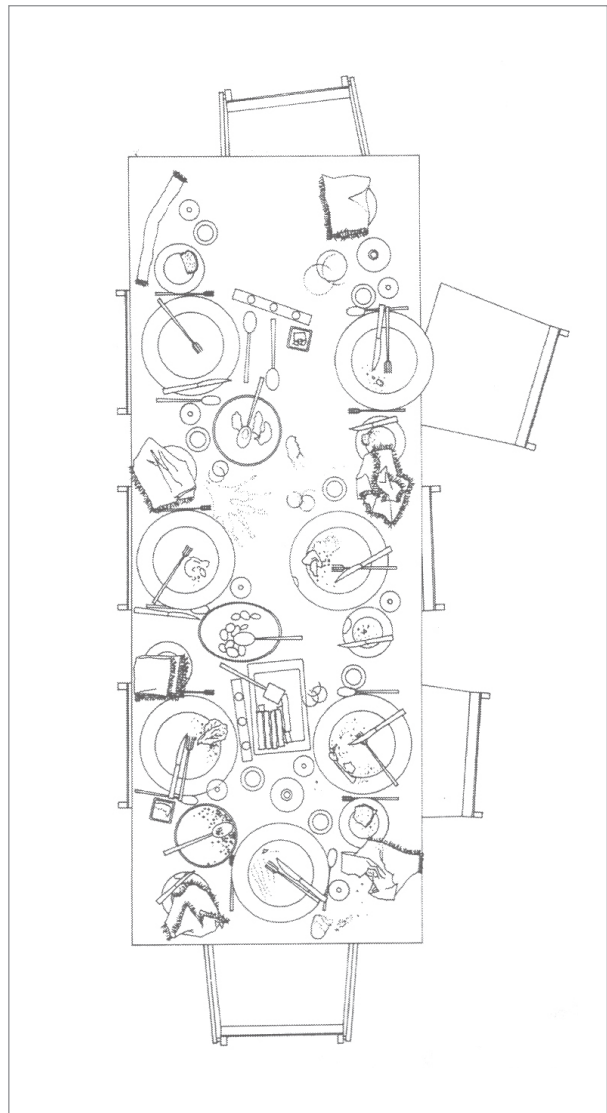


Fig. 4.0

The dirty tablecloth, witness of disorder. A palimpsest. This is the reality of domestic life.
By Sarah Wigglesworth
Architects, London.
(Horwitz & Singley, 2004:13)



Chapter 4 THE TRACE

SPACE PERCEPTION

In continuation of the preceding perspective on the meal experience, present chapter seeks from a food scientific point of view to elaborate on the role of architecture in the meal experience, and from an architectural point of view to elaborate on the perception of space with a phenomenological and semiotic objective.

With the previous chapter a proposal for a conceptual model illustrating the role of architecture in the meal experience, depicted through the food scientific research field's notion on consumer choice and food expectations was developed. However, this model pointed towards lacking levels of understanding describing the significant relationship between perceptions of space and triggering of expectations on forthcoming food experiences. The purpose of present chapter should therefore, on the basis of theory of expectations towards food experiences in chapter 3, be seen as an encircling of the sensory and connotative perception of architectural staging of meal situations. Hence, investigating that which forms the frames of the meal and detecting its architectural significance. This will be done by focusing on architecture as phenomena and spatial whole communicated through interior design and detailing in levels of furniture and tableware. And here through what it means to think architecture as staging and reading of shape as bodily perception and as connotative sign.

The study commence an overall perspective on the fields of thinking within phenomenology based on the multi-sensual understanding of space formulated by Finish architect Juhani Pallasmaa in his book; *Eyes of the skin*, followed by elaborating theories on the bodily relation and reading of space by philosopher Maurice Merleau-Ponty and anthropologist Edward T. Hall. In continuation of this phenomenological perspective, it is on the basis of theories of semiology and essays by the philosophers Roland Barthes and Umberto Eco, argued that to fully comprehend the perception of space and shape one must supplement the phenomenological point of view with a semiotic perspective and the reading of shape as connotative sign. Thus moving from a broad conception of architecture and built environment as bodily related, into a detailed analysis of the public dining room interior and the significance of its detailed elements as tableware and furniture.

With the encircling of the elements of the phenomenological and semiotic architecture it has been the goal to elaborate on the notion of architectures role in the meal experience, and develop a theoretical basis for the understanding of architecture as staging and how to implement its aesthetic means in the final design proposal. Furthermore as part of this it has been the intention, theoretically to discuss architecture from a sensory perspective investigating the bodily relation and comprehension of architectural space, interior design and tableware. This with the purpose of understanding how means of

>> The purpose of present chapter should therefore, on the basis of the theory on form as triggering of expectations towards food experiences, be seen as an encircling of the sensory and connotative perception of architectural staging of meal situations; hence investigating that which forms the meal and detecting its architectural significance. <<

architecture and its inherited atmosphere can be used to create unique spatial experiences, and finally how this can be used to create unique meal experiences putting focus on the tableware made by Figgjo. This is in the following chapter 5; *Architectural staging, a case study*, further exemplified through an analysis of the two epochal meals performed at respectively Villa Hadrian, 118 AD and Madeleines Madteater 2007 AD.

EXPERIENCING ARCHITECTURE, THE PHENOMENOLOGY OF SPACE

Phenomenology was originally developed by Edmund Husserl¹³ and is defined as the study of how certain phenomena appear through the bodily comprehension of space and the ontological importance of sense, receptivity perceived both visually, auditory, tactile, gustatory, and olfactory. However, phenomenology should not be understood as a superficial level of sense reception, but rather as a deeper, interpretative dimension in the form of hermeneutics seeking to relate the experience of space and place with an existentialist being-in and experience of the world. So whereas perception psychology as mentioned previously adopts the understanding of form and shape as mere objects in the world being experienced by stimuli of the sense modalities and human consciousness. Phenomenology on the other hand adopts the understanding of actions uniting object and subject. Architecture and form in general should as such according to the field of phenomenology not be understood as physical reality, but as a phenomena engaging and involving with your body and personality. (Leach 1997:83)

>> *Most phenomenologist argues in relation to the segmentation of the senses and the raising focus on visual appearance within the artistic world, that the other senses as well needs to be addressed and that space needs to be experienced as much through the body and the nose as the eyes and ears. <<*

The development of the phenomenological way of thinking also originally rose as an opposition towards the growing tendencies within the artistic fields in western culture to focus entirely on the visual aspects and the importance of shape as visual object, rather than the multi-sensuous perception. Phenomenologist believed that since the invention of linear perspective and the architectural and artistic obsessions with harmony and proportion in shape – perhaps even dating back to the Greek philosophers Plato and Aristotle¹⁴, a tendency towards regarding sight as the noblest of our senses had developed. Thus reading space and shape as abstract and remote from bodily sensations. (Leach 1997:83) Most phenomenologist argues in relation to this segmentation of the senses and the raising focus on visual appearance within the artistic world, that the other senses as well needs to be addressed and that space needs to be experienced as much through the body and the nose, as the eyes and ears, thus engaging with the lower senses on a level with the higher senses. (Leach 1997:83-84, Pallasmaa 1996:6-7)

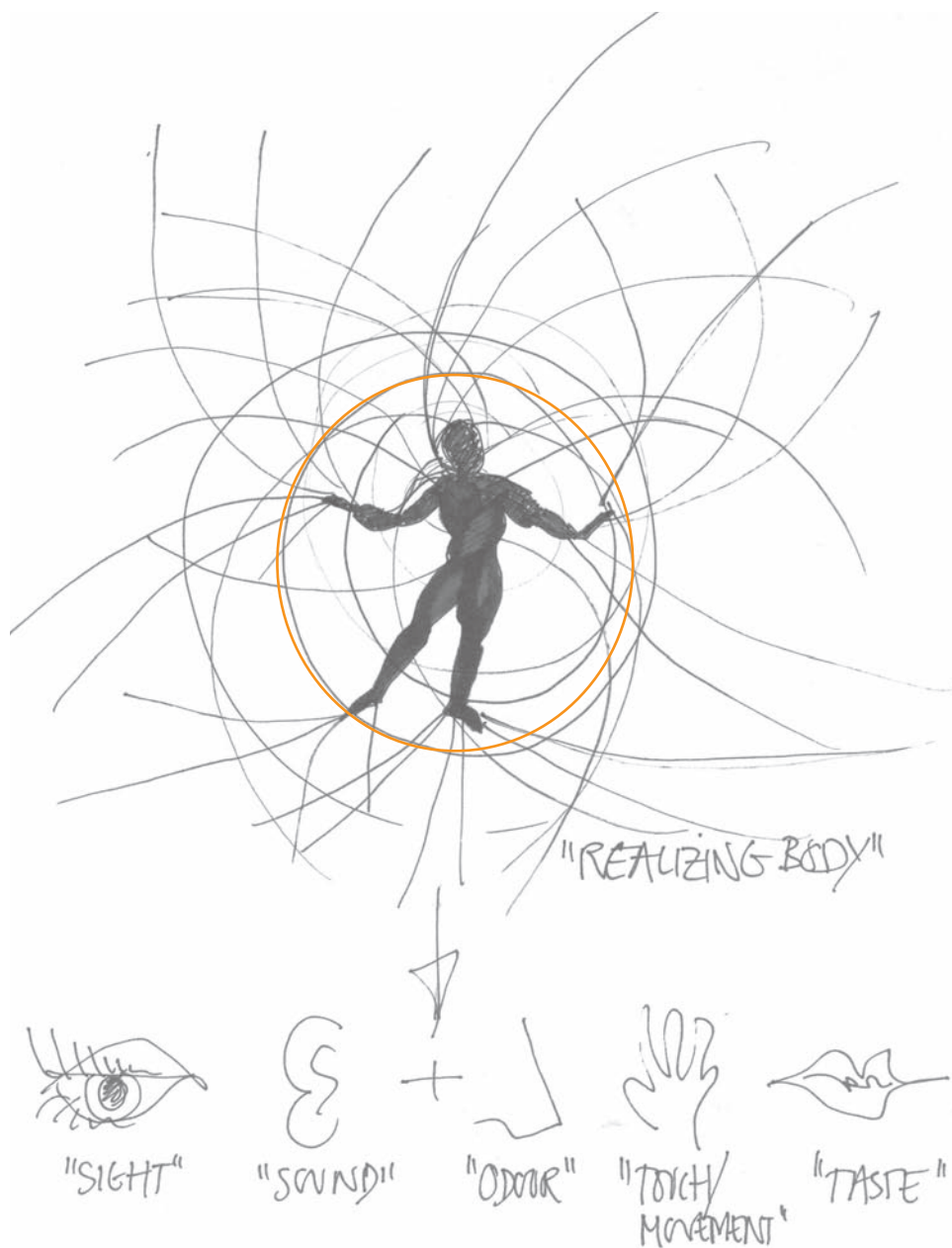


Fig. 4.1

Sensing space

The body as realizing centre; giving significance to spaces and objects, through sensations, room perception and mans ability to move, orientate and navigate in a world of sounds, shapes, colours, smells and tastes. (Own Illustration by drawing of Oscar Schlemmer, "ManDance")

>> *Architecture is encountered, approached, confronted, moved through, and related directly to ones body in the framing of our behaviour and activities. As why architecture and buildings are not aesthetic ends in themselves, but frame, articulate, structure, facilitate, relate, and give significance to the explorer of its spatial settings.* <<

Eyes of the skin

Within the architectural world as referred to previously, one of the persons perhaps emphasising the multi-sensuous approach mostly is practising architect and theoretician; Juhani Pallasmaa, who in his book; *Eyes of the Skin*, especially elaborates on the phenomenological approach towards understanding architectural space through the engagement of the body and its sense modalities. (Pallasmaa 1996) Pallasmaa argues that architecture is encountered, approached, confronted, moved through, and related directly to ones body in the framing of our behaviour and activities. As why architecture and buildings are not aesthetic ends in themselves, but frame, articulate, structure, facilitate, relate, and give significance to the explorer of its spatial settings. Architecture is according to Pallasmaa thus fundamentally confronted with human existence in space and time expressing and relating mans being-in-the-world, and the separation and reduction of the senses and bodily relation to space into pure visual images as the tendency shows in contemporary times. This fragments the innate plasticity of the perceptual system and reinforce a sense of detachment and alienation. (Pallasmaa 1996:26, 45)

As a response to this detachment of the body, Pallasmaa advocates that artistic expression and the expression of architecture, is engaged with the pre-verbal meanings of the world. And he emphasises that these meanings rather should be incorporated and lived than intellectually understood. The mind perceives the world and the world exists through experience. Experiencing a space or a house is a dialog, a kind of exchange; *I place myself in the space and the space settles in me.* (Pallasmaa 2005:65) Pallasmaa breaks with the scientific theory of gestalt or perceptual-psychology as put forward with the food scientific field in chapter 3, and argues that architecture and built shape is capable of expressing something beyond physical shape. That architecture and built form encompasses a poetic atmosphere; - a spirit almost, that contains the capacity of bringing us back and reconstruct experiences of an undifferentiated interior world and stimulate imagination and fantasy. He has a strong belief that buildings thus relate us to the world in particular ways, and that they refine our being-in-the-world both in terms of time and space. Architecture thereby makes the continuum of space and the flow of time conceivable to the human mind. (Pallasmaa 1996:15-16, 30; Pallasmaa 2005:60)

The background for these considerations on shapes ability to bring us back to past memories is a firm believe on the multi-sensory qualities of space, matter and scale, and that architecture and built shape is equally measured by the eye, ear, nose, skin, tongue, skeleton, and muscles. - A believe on the reflection of the world in the body, and a projection of the body on the world, where the sensory experiences of space is integrated through the body and remembered because it affected our bodies and generated associations to hold in our personal

worlds and minds. (Pallasmaa 1996:31)

Pallasmaa passionately writes about his remembrance of the appearance of his old grandfather's farmhouse, which he visited in his early childhood. Here the remembrance of the weight resistance and the patina of the scared wooden surface are nearly as clear as the characteristic scent of home that hit his face every time he opened the door into the house. (Pallasmaa 1996:37) *"Every dwelling has its individual smell of home"* Pallasmaa introductory writes. And with this he touches upon something as fundamental and latently rooted in the mind as the memory of Combray and aunt Léonie evoked by Marcel Proust at the odour¹⁵ and taste of the Madeleine cake dipped in the lime-flower tea (see Appendix A2, page 298). Here the scent and taste experienced through the lower senses becomes a bridge in time, evoking feelings and emotions of love. - An all-powerful joy reminding him of past social relations and a happy state-of-being. (Pallasmaa 1996:37; Moncrieff 2006:61-64)

The spatial qualities of taste

In relation to Pallasmaa's vivid memories on the experience of his grandfather's front door, he further argues that images of one sensory realm feed further imagery in other sense modalities. And emphasise in relation hereto that images of presence give rise to images of imagination. The body become a knowing and remembering part of our unconscious self. Furthermore a subtle transference between different sense modalities occurs and especially the transitions of stimuli between nose and eyes, touch and taste are emphasised. (Pallasmaa 1996:30, 38, 40) As mentioned above Pallasmaa takes his point of departure in the fact that our bodies and movements are in constant interaction with the surrounding environment. On the basis of this the world and the self inform and redefine each other constantly. All the senses, including vision, can as such according to Pallasmaa be regarded as extensions of touch. The senses are thereby specialisations of the skin and part of our haptic memory. (Pallasmaa 1996:27, 29) But with the initiate notion on phenomenology and the architecture as a phenomena engaging with our personality, perhaps the border of yourself is no longer your skin, but the space in which you are? You start to attach and define yourself based on the skin of the space?

According to Pallasmaa this connection between the skin of the body and the skin of the architecture is further what connects the realms of tactile and oral sensations. Pallasmaa argues that there is a subtle transference between visual or tactile perceptions and taste experiences, referring to how colour and delicate details can evoke oral sensations. He even claims that;

The most archaic origin of architectural space is in the cavity of the mouth.
(Pallasmaa 1996:42)



Fig. 4.2

Interior, by Hammershøi

Architecture has an ability to engage physically with the body and mind; bringing us back in time to past memories of spaces, places and social affiliations, through spatial details experienced as texture, light, movement, scent or taste.
(Billgren & Osipow 1995:100)

As means of underlining this statement, he refers to the following description of a subtle interaction of the senses in the simple act of uncovering a bowl of soup by Tanizaki;

"With lacquer ware there is a beauty in that moment between removing the lid and lifting the bowl to the mouth when one gazes at the still, silent liquid in the dark depths of the bowl, its colour hardly differing from the bowl itself. What lies within the darkness one cannot distinguish, but the palm senses the gentle movements of the liquid, vapour rises from within forming droplets on the rim, and a fragrance carried upon the vapour brings a delicate anticipation... a moment of mystery, it might almost be called, a moment of trance." (by Jun'ichiro Tanizaki, "In Praise of Shadows". Pallasmaa 1996:42)

As so Pallasmaa enrolls the human body as the centre of the world and emphasises that as the eye takes in the colours, light and shadows of the room and the ears the reflection of sound on the different surfaces. So does the body via the nose, skin, muscles and mouth [sic!] register shape, movement, temperature, humidity, odour, texture, and taste from the materials and objects present. According to Pallasmaa architecture has in this way an ability to engage physically with the body and the mind through careful considerations on spatial details as texture, light, scent, and movement. (Pallasmaa 1996:44-45)

Body as realizing centre

Pallasmaa partly takes his point of departure in the phenomenological approach stated by philosophers as Maurice Merleau-Ponty enrolling the body as the centre of perception of the world. (Pallasmaa 2005:59) Merleau-Ponty wrote in 1945 what is considered his greatest work, the book; *Phénoménologie de la perception*, where he with a study of phenomenological analyses of pathological disorders emphasizes the body not only for its sensuous and emotional qualities, but recognized the body as the vagrant of ones character. (Merleau-Ponty 1994:329) As so Merleau-Ponty breaks with the philosophy of the body as a tool and a passive object of realization argued for in the more positivistic fields of science, and instead advocates for the body as an active part of cognition where the consciousness takes its initiate form.

However, the way that Merleau-Ponty approaches the field of phenomenology is by some considered very different from others defining this field. (Lübcke 2002:329) Especially existentialism; being-in-the-world, and the comprehension of the life-world, are aspects which Merleau-Ponty adopts and elaborates further from the perspective of the body as the being-in-the-world. His point is as such a phenomenological critique of the Cartesian tradition¹⁶, underlining that we understand ourselves through the body in the world, and can not merely exist as a separate mind. But that the primary approach to the comprehension of our surroundings are through the sensuous



Fig. 8.3

Body and architecture
*Architecture embracing you,
and the immediate bodily and
sensuous interaction with
shape. "The endless house" by
Frederick Kiesler, 1965.
(Mical, 2005:151)*

>> *An architecture inviting for touch and movement, through tactile textures or sensuous dynamic forms becomes aesthetic means of directly engaging the body and the senses, providing a higher sense of being-in-the-world both physically and mentally.* <<

experience and knowledge achieved with the sensations and perception; *I exists in the world not because "I think", but because "I can".* (Merleau-Ponty 1994:viii, 91) To Merleau-Ponty, sensation and perception is not just a matter of receiving physical stimuli, but is closely related to man's ability to move, orientate and navigate in a world of sounds, shapes, colours, smells and tastes. - And the ability to form things through the knowledge "rooted in the hands and skin". The body is not just a means for reading the exterior world, but a realizing body giving significance to things and objects as we sees, touches, talk, smells, listens and tastes. (Lübecke 2002:332; Merleau-Ponty 1994:viii)

There exists as such according to Merleau-Ponty a third matter between the mind and body, and the world gives meaning to us through the body, before we choose to give it meaning as a conscious mind. Regarding this, Merleau-Ponty emphasises that we inhabit space and time, and are able to extend this being in the world, by incorporating and acquiring objects around us. The objects discontinue being pure objects but become means to shape our lives. We both absorb these objects as parts of ourselves and at the same time extend ourselves in the world. To get used to riding a bike for instance or walking a staircase means according to Merleau-Ponty to have a prior knowledge settled in the body. We just forgot about this ability, forgot what it means to really listen, and perceive with all our senses. (Lübcke 2002:335,336; Merleau-Ponty 1994:92,99) An architecture inviting for touch and movement, through tactile textures as the interiors proposed by Loos and Jacobsen, or the sensuous dynamic forms at the restaurants Vagenende, Julien and Georges, according to the theory of Merleau-Ponty become aesthetic means of directly engaging the body and the senses, providing a higher sense of being-in-the-world both physically and mentally. Merleau-Ponty's writings as they might be interpreted as such moves toward the importance of spatial sequences, texture, material details and light experiences in the development of architectural space.

As seen from the above arguments Merleau-Ponty disputes the contemporary, classical perceptual-psychological theories of perception, where man perceives single objects; an ashtray or a staircase, and instead claims that perception is a matter of continuous experiences, which refer to and clarify each other. Perceptions belong together in one configuration or coherence of significance, and Merleau-Ponty claims that perception as so is closely linked to the history of both perceiving subject and perceived object. In my opinion this is where Merleau-Ponty moves towards the significance of semiotics in relation to phenomenology and bodily perception. Nevertheless, without ever fully describing how. The closest he gets towards a specific elaboration on the meaning of his understanding of the significance is through the use of the term; *inter-subjectivity*, where physical objects witnesses and contains trays of previous life forms and existence. Merleau-Ponty argues that with our body we

can express movements and language, thus relating to and defining the world. But the given situation we are part of is furthermore part of a social, historical and linguistic connection. On the background of the perceived world, a social and historical world is therefore formed according to Merleau-Ponty, and the world we as so approaches already contains a meaning to us through previous experiences. (Lübcke 2002:337,348; Merleau-Ponty 1994:8, 83, 89)

The language of the senses

Whereas Merleau-Ponty seems to focus primarily on the *why*; defining the existence of the body in the world and the phenomenological foundation of body as a sensuous mind. The anthropologist Edward T. Hall on the other hand with his book; *The Hidden Dimension*, elaborates further on the specific perception of space through the five senses. And Hall is especially concerned with *how* the perception of the world is related to social bonds, culture and languages. One of Halls main points in relation to this is the notion that different cultures speak different languages, thus inhabit different sensory worlds. As why simultaneous situations perceived by two persons from two different cultures, not necessarily provide the same sensuous experience. (Hall 1966:2)

Generally Hall takes his point of departure towards the understanding of human perception based on an anthropological background. The primordial abilities of our ancestors and of animals seeking to understand how we as modern human beings perhaps downgrade the ability of our bodies and sense modalities. As so Hall adopts some of the more positivist approaches towards sensation and perception that Merleau-Ponty seeks to avoid, and initiates his chapter on perception of space by dividing the sense modalities into two superior categories partly reflecting the cultural notion of lower and higher senses. The categories are respectively the distance receptors (eyes¹⁷, ears and nose) and the immediate receptors (skin, membranes, and muscles). However, in relation to this Hall argues that the sense of touch¹⁸; the skin feel, is something deeply rooted in our mind. As old as the evolutionary age and perhaps the ability to feel through the skin was developed even before our eyes had been formed? (Hall 1966:42) As so he connects with the primordial body-related thoughts of Pallasmaa and most importantly Merleau-Ponty after all.

Hall is, however, very much concerned with the cultural differences between Americans, Europeans and Asians in his anthropological studies. And arrives at a result where his suggestion for a better architecture is based on the measured values of fixed- and semi-fixed spaces between people, organising architectural spaces in intimate, personal, social, and public zones as an answer to the raising problems of stress and violence in our modern societies. (Hall 1966:115) In his quest for a better arrangement of architectural space, Hall emphasises that the need and comprehension of these intermediate spaces differs between cultures. And through different considerations on how

>> Hall argues that the sense of touch; the skin feel is something deeply rooted in our mind as old as the evolutionary age, and perhaps the ability to feel through the skin was developed even before our eyes had been formed? <<

>> *Mans sense of space and distance is not static as outlined with the teaching of linear and three-dimensional perspectives in the art and architectural schools, but rather imitates the dynamic structure of animals, relating sensations to activity and movement; what can be done in space, rather than what is seen.* <<

Germans perceive paper-walls contrary to Japanese he ends at a much more interesting statement, in my opinion, being;

Informal spatial patterns have distinct bounds, and such deep, if unvoiced significance that they form an essential part of the culture...the study of culture in the proximic sense is therefore the study of people's use of their sensory apparatuses in different emotional states during different activities, in different relationships, and in different settings and contexts. (Hall 1966:112,181)

Behind these thoughts, and Hall's obsession with the cultural sensory perceptions, he actually reveals an enormous insight and outline on mans relation to space and physical form in general, experienced through the senses and directly related to the body. He emphasises that mans sense of space and distance is not static as outlined with the teaching of linear and three-dimensional perspectives in the art and architectural schools, but rather imitates the dynamic structure of animals, relating sensations to activity and movement. *What can be done in space, rather than what is seen.* (Hall 1966:114,115) With this statement Hall touches upon something as fundamental as Merleau-Ponty, questioning our modern understanding of mans being-in-the world and the uniqueness of the mind compared to the body.

Hall distinguishes between intimate, personal, social and public distances or space, defined through the considerations of touching, non-touching, bodily warmth, visual detail in roundness and flatness of structures, and distortion when intimately close. The comprehension of the bodies of others varies with the distance, and details as eyebrows etc. get lost, but through the body stature and body language perceptions of mood and relations between people are kept at quite long distances. (Hall 1966:8) In public spaces these relations between body-spaces are further emphasises through the placement of furniture and the architectural intention behind conversations and shared space. The architectural environment can invite for intimate conversation projected from outside listeners or spectators, or force strangers to sit closely at a table eating together as seen with the setup in Madeleines Madteater (see page 124-125). As so architecture comes to reveal a great deal about cultural social structures and the perception of the world, through shape and the arrangement of for instance furniture.

The information or stimuli received with the distance receptors of eyes, ears and nose, plays an important part in our daily life and the understanding of surrounding space. So more subtle sensing and communicating qualities of the skin¹⁹ are often overlooked according to both Hall and Pallasmaa. However, the qualities of the skin and body are the qualities which also relate to man's perception of space, through the kinaesthetic information gathered by the muscles and the joints. (Hall 1966:51)According to Hall there exists an interrelationship between kinaesthetic experience of space and the visual experience,

and this can actively be used to articulate the sensuous experience of small spaces through broken views and the use of kinaesthetic involvement. This by stretching space into small paths and forms like seen with the Kântner bar by Loos, or especially the bodily movements invited for between the morphed spaces of restaurant Georges (see figure 1.19 and 1.20). Broken views, kinaesthetic involvement by movement of the body and framing the spatial settings deliberately to engage with the senses provide a sensuous and aesthetic experience of architecture and built form.

Hall emphasises the movement of the body and the involvement of muscular sensations as an opponent to the far reaching movement of the eye. Because weight, pressure, and resistance are part of our habitual body experience, we unconsciously identify with these characteristics in the forms we engage with. In any building three main things according to Hall must be distinguished; *the actual bigness* (mechanical measurement), *the bigness it appears to have* (visual measurement) and *the feeling of bigness it gives* (bodily measurement). In relation to this he furthermore argues that the mystery of the framing settings and space dimmed to the eye forces the spectator to watch his steps, slowly revealing space through the movement of the body and the physical touch of the skin. - The changing levels, the circular, walled-in, intimate stairs to the upper floors, the small scale, and the artistic use of texture; the roughest bricks separated by smooth, gilded mortar are all bodily sensuous experiences according to Hall is what directly engage with the body and our senses on several levels providing an aesthetic experience of architecture. (Hall 1966:51, 52) Pallasmaa relates directly to this statement by adding a specific sensuous and primordial value to elements like the hut, the cave, the grotto or the forest. A walk through a forest is invigorating and healing due to the interaction of all sense modalities, he claims. (Pallasmaa 1996:28)

Those architectural means of framing experiences and creating mysterious intriguing atmospheres like the grotto or forest are emphasised in the proposals for Kântner Bar by Loos, the Art Nouveau restaurants Vagenende and Julien, or the tactile textures used by Jacobsen in the SAS hotel Restaurant. They are all successful due to their sensitivity towards a variety in materials, texture, movement, light and their ability to provide many different ways of experiencing space. It is the compelled feeling of running ones fingers against the surfaces and the urge to touch that enhances the experience of space and makes architecture personally involve with people through the surfaces and the skin of both body and building. Texture is appraised and appreciated almost entirely by touch. Even when it only appears visually, and it is the memory of previous tactile experiences of similar textures that enables us to decode and appreciate the texture visually presented. (Hall 1966:62)

Hall emphasises further the inherited communication of the architect,

>> *The mystery of framing settings, and space dimmed to the eye forces the spectator to watch his steps; slowly revealing space through the movement of the body and the physical touch of the skin. - The changing levels, the circular, walled-in, intimate stairs to the upper floors, the small scale, and the artistic use of texture are all bodily sensuous experiences directly engaging with the body and our senses on several levels, providing an aesthetic experience of architecture like a walk in the primordial forest.* <<

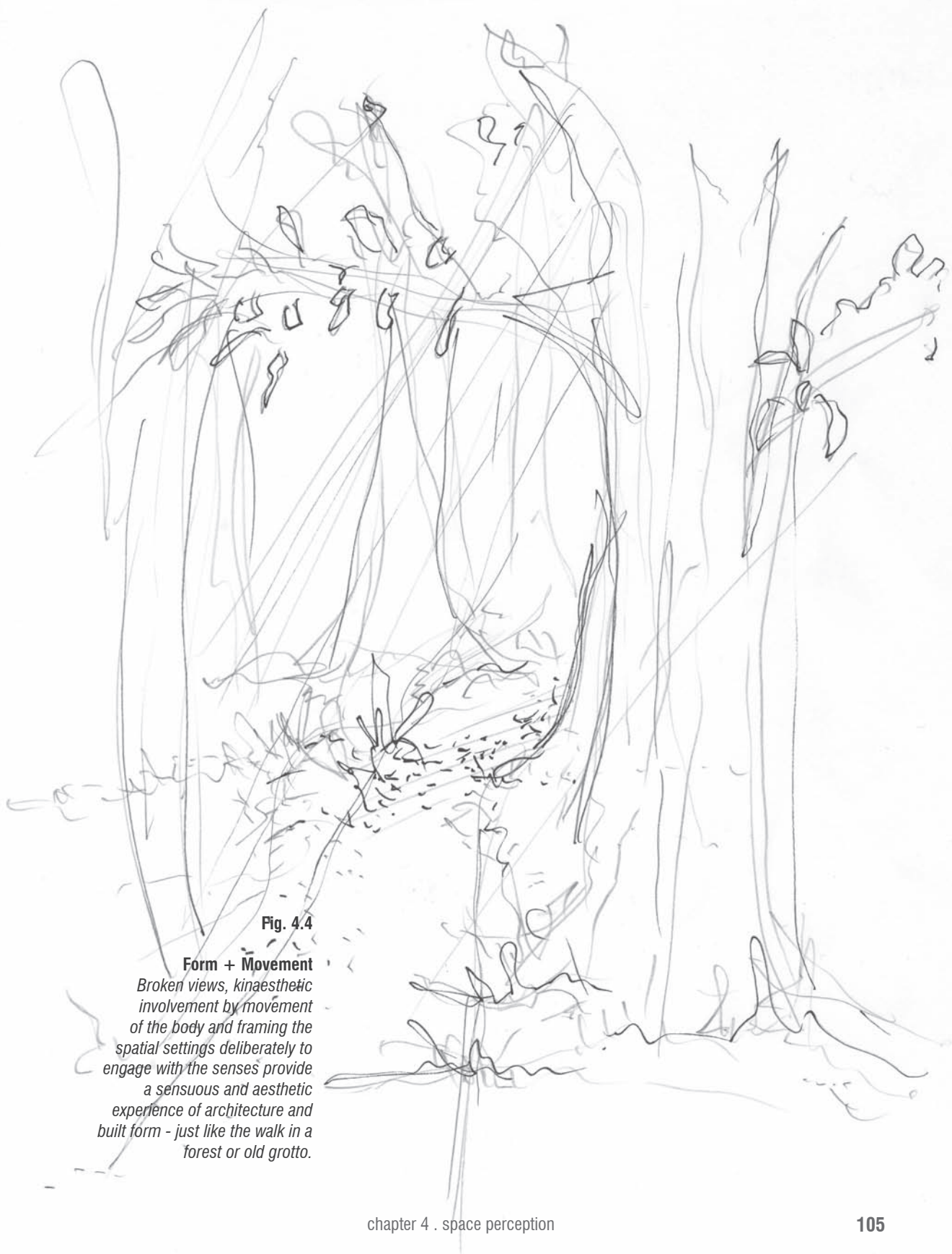


Fig. 4.4

Form + Movement

Broken views, kinaesthetic involvement by movement of the body and framing the spatial settings deliberately to engage with the senses provide a sensuous and aesthetic experience of architecture and built form - just like the walk in a forest or old grotto.

the designer or the craftsman through the perception of texture. A bowl smooth and pleasing to touch communicates not only that the artisan cared about the bowl and the person buying it, but also about himself (Hall 1966:62). As such Hall encapsulates perhaps the essence of the magnificent move Jacobsen take with his proposal for the SAS hotel Restaurant. By engaging in scales of both room, furniture and cutlery, and in a skilled handicraft manner engaging in the shaping of the cutlery and furniture with a precise and almost sculptural manner, carefully shaping the stool or spoon according to the scale and use of the body Jacobsen directly relates the craftsman and the architect to the user of the specific object.

Staging the sensuous experience

In my opinion, perhaps sensory differences occur relative to diverse cultural backgrounds as proposed by Hall. But it is not important whether Asians like thick walls compared to Germans, but rather the phenomena and the variety in the sensuous experience that to me from an architectural point of view is interesting. But instead the sound experience, textural experience and visual experience from the play of light and shadow, as seen with the restaurant examples of Jacobsen for the SAS Hotel or the sensuous use of material and whip-lashed form in the Art Nouveau restaurants Vagenende and Julien (see page 34). The essential part and the most interesting part is shape and built form's ability to create different scenarios, communicate different narratives and tell different stories. - And doing so through different materials, plays of light and shadow, movements, sounds, odours, and perhaps even tastes, as seen with the study on the epochal restaurants in chapter 1, and with the argumentation of Pallasmaa, Hall and Merleau-Ponty above. As why a greater focus perhaps should be put on the sensuous and direct bodily related spatial experience, rather than a dominating visual focus in a proposal for a showroom and eating facility for Figgjo?

Pallasmaa, as I see it, places himself between Hall and Merleau-Ponty with the enrolling of the body as the centre for perception of surrounding architectural settings, and emphasises the physical comprehension and ability of architectures poetic spirit to touch our skin and our minds. Consequently Pallasmaa's suggestion for a future bodily and sensuous focus in architecture is a deeper concern for the detailing and careful assembly of materials and structures of the building. And he points at the tectonic²⁰ approach where natural and local materials are used to form an aesthetic utter whole around the house. As so Pallasmaa rejects the use of new artificial materials and states;

The flatness of today's standard architecture is strengthened by a weakened sense of materiality...natural materials express their age and history, as well as the story of their origin and human use...however the machine-made materials of today; scale-less sheets of glass, enamelled metals, and synthetic plastics – tend to present their unyielding surfaces to the eye without conveying their material essence of age. (Pallasmaa 1996:21)

"TURF" felt carpet by HAY

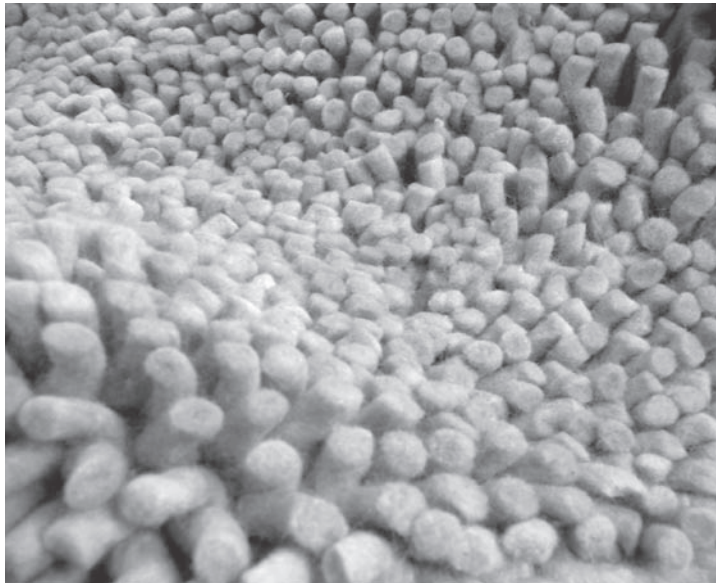


Fig. 4.5

Textures + Touch

Texture is appraised and appreciated almost entirely by touch, even when it only appears visually, and it is the memory of previous tactile experiences of similar textures that enables us to decode and appreciate the texture visually presented.

Nevertheless, Pallasmaa seeks hope in some of the contemporary attempts towards a more poetic architecture where the play of light and shadow for instance are articulated through the use of even new materials as concrete and plastics.

It is my conviction that Pallasmaa's objective is too narrow-minded abandoning all new materials as this. And I think that he actually pin points the problem quite accurately in his considerations on the new more poetic attempts. It is my stance that poetic sense and architectonic quality is not a matter of the origin of the material or the natural state of its being, but rather a careful and architectonic consideration on how the materials are used and articulated through shape and means as texture, detailing, colour and light. As emphasised again through the study of epochal restaurants, where restaurant Georges actually with the use of new materials as rubber and metal achieve a highly sensuous and intriguing form (see page 50). So I rather emphasise the architectural staging, the grasping of the deep significance of touch and spatial articulation through careful detailing, than a strict focus on natural and locally rooted materials.

>> *It is my stance that poetic sense and architectonic quality is not a matter of the origin of the material or the natural state of its being, but rather a careful and architectonic consideration on how the materials are used and articulated through shape and means as texture, detailing, colour and light* <<

Sensation as dynamic movement

Space perception is not only a matter of what can be perceived, but also what can be screened out. - The ability to know which information to value higher than other in order not to be confused, or signals becoming too complex. In continuation of this Hall emphasises the importance of interrelations between the different sense modalities, and argues that man actually judges for instance distance as a consequence of the interrelation between the senses with each other and with past experiences. Man do not immediately perceive by sight anything else than light-waves and colours. Or hear anything but sound waves²¹. But due to parallel associations drawn between the sensations of eyes and ears, we are able to recognise the sound and the image of for instance a car. (Hall 1966:44, 67) An important aspect in the comprehension of human understanding is according to Hall leaning on gestalt psychology. Furthermore the recognition of synthesising experiences between sight and cognition. Man learns while he sees and what he learns influences what he sees (Hall 1966:66).

Merleau-Ponty partly agrees with Hall on this perspective but emphasises that the connection between the different parts of our body and the parts of our visual and tactile perceptions are not experienced stepwise, but as a uniform whole. And that these experiences are what forms the perception of being a body. So according to Merleau-Ponty we are not aware of ourselves as a body as we perceive, but exist merely through the sensory perceptions. (Merleau-Ponty 1994:106,107) This perspective demonstrates that man alters his perception as he senses, not only through the actual relation between sensed objects and the memory of past experiences but also through the interpretation of the given situation on the background of the perceptions.

To me, this is where the phenomenological perception of space becomes highly related to the understanding of space through reading of objects and shape as emphasised by Pallasmaa (see page 87). In any discussion of vision and spatial experiences it is necessary to distinguish between the retinal image (the pure sensation) and what man perceives; experiences through the reading of both physical shape and signs. Which finally leads us to the study of semiotics.

READING OF SIGNS, THE SEMIOTICS OF SPACE

The field of semiotics derives from the field of structuralism originating from the Swiss linguist Ferdinand de Saussure²² and had its breakthrough as a theoretical science during the 1960s and 1970s with among others the French writer and critic Roland Barthes and the Italian writer and semiotician Umberto Eco. (Leach 1997:164,165,181) Saussure as a linguistic drew a distinction between language as a system and language as an individual utterance and his concern was to understand the underlying significance of the language as a system.

- The reading of signs and their inherited relation between content and meaning. To do this Saussure distinguishes between signs as the *signifier* and the *signified*, differentiating between the direct reference to the form (the signifier) and the content or interpreted meaning of the form (the signified). This means for instance that the rose I send to my beloved is more than a mere rose, but furthermore represents my love. The rose as a sign thus is a signifier in its actual form as a rose, but further becomes a signified in its connotative significance as an expression for my feelings of love. (Barthes 1996:10, 11)

Mythologies of shape

Barthes adopts Saussure's notation on the signifier and the signified in his writings in the book; *Mythologies*, and approaches the semiotic field more from a semantic point of view. Here he seeks to understand how the sign signifies through a series of short essays on myths about anything from the Eiffel tower to red wine and beef. Eco in his text; *Function and sign*, in addition to Barthes on the other hand generally seeks to understand what the significance of the signs in architecture means. Seeking the semiotic approach which is less concerned and depended on the cultural and historical discourses as Barthes' semantic approach ascribes his mythical readings. (Barthes 1996; Bek & Oxvig 1999)

In the writings of Barthes the significance of the myth can change and alter dependent on history and contemporary time, making the signified closely related to cultural norms and values. As well as in times an expression of political and economical moves in society. (Barthes 1996:12,243) To Barthes the myth is a kind of stolen language. A meaning which benefit from another significance. The myth of the

Eiffel Tower augments this by unveiling a shelter of equivocal functions enrolling the tower in a series of connotations, where the tower as a polyphony of pleasures offers experiences from technical wonders and panoramic views of Paris, to exquisite Haute cuisine and tourist gadgets. Visiting the tower, walking around it, admiring it and touching it are as such just one of the more obvious and elementary functions of the tower. And the tower ultimately reunites with the essential function of all major tourist sites; autarchy – and the ability to breathe and live on its own. One can dream there, eat there, observe there, understand there, marvel there – one can feel oneself cut off from the rest of the world, and yet feel like the owner of the world. (Leach 1997:180) In a similar manner, Barthes' myths of wine and beef encompass deeper cultural meanings and expression of affiliation. The wine becomes a sign on mythical thirst. A treat which transforms the silent into an eager talker, the weak into strong, and binds the peasant to dreams of freedom from hard labour and indigent life. However, the act of drinking the wine is as important as actually drinking it and the wine becomes an almost decorative performance embellishing both the every day meal of the French, as well as the festive feast and banquets. (Barthes 1996:101) With the myth, the form disguised the real intent and significance through persuasion and daring temptation. However, an important notice is according to Barthes the intention behind the myth and the significance the myth communicates with its objectification. In relation hereto Barthes emphasises the close connection of the meaning (the signified) of the myth with the primary sign of the form (the signifier). In this connotation of form lies furthermore the ability to relate two different phenomena by the detection of common characteristics. And this is what forms the basis of the myth. (Barthes 1996:16-17, 19) So when a person buys food in a store, eats certain foods or places specific foods in his kitchen. It is according to Barthes, not just a given matter of handling goods, but reflects a situation of significance and meaning communicating affiliations and values in certain social and cultural groups. As argued for in the previous chapter 3: *The meal experience*.

>> *When a person buys food in a store; eats certain foods at restaurants or places specific foods in his kitchen, it is according to Barthes, not just a given matter of handling goods, but reflects a situation of significance and meaning, communicating affiliations and values in certain social and cultural groups* <<

Significance of space

Eco adopts a middle ground with respect to the understanding of language, and avoids an approach of language as either univocal or deferring to infinite meanings as Barthes do to a great extent. Instead Eco formulates his approach on the understanding of codes, and draws the distinction between *denotative* and *connotative* codes. Where denotative and connotative codes similar to Barthes' signifier and signified, are respectively the perceptual, material form and the significance or intentional idea expressed with the form. (Eco 1968:294; Leach 1997:181) In his semiotic approach towards architecture, Eco makes the function the focal point. Thus emphasising that the significance of the architectural sign is the *idea* or *intention* behind the specific function. - The architectural idea communicated through the shape. Consequently, function in an architectural manner is not

>> *Eco makes the function the focal point, thus emphasising that the significance of the architectural sign is the idea or intention on the specific function; the architectural idea communicated through the shape.* <<

to be understood merely as the actual use of the architectural space or building, but as an interpreted potential of use put forward by the articulation of the architecture as a connotative form. (Eco 1968:294) With this notion Eco distinguishes between the primary and secondary function of architecture. Concluding that architects must design structures for variable primary functions and as an important part of this, further design architectural space with open secondary functions in mind. Hence, expressing an architectural intention or significance. The point of this is that comprehending functions with a semiotic objective might allow us to understand and define functions better in the first place, discovering other types of "functionality" which are at least as essential as mere use. – *The socio-cultural and communicative functions*. Eco even states this with an argument encompassing both culinary as architectural aspects;

"We will leave aside, however, the question of whether our notions on these phenomena would be applicable to any type of design producing three-dimensional constructions destined to permit the fulfilment of some function connected with life in society, a definition that would embrace the design of clothing, insofar as clothing is culturalized and a means of participating in society, and even the design of food, not as the production of something for the individuals' nourishment, but insofar as it involves the construction of context that have social functions and symbolic connotations, such as particular menus, banquets, the accessories of a meal – a definition that would be understood to exclude, on the other hand, the production of three-dimensional objects destined primarily to be contemplated rather than utilized in society, but which still comprise the scenographic structure as a means, such as works of art or theatre plays. (Eco 1969:296; Leach 1997:182)

>> *The significance of scenographic structures and staging of food by design; communicating primary functions and encompassing a connotative socio-cultural significance is what binds the architecture and the culinary field together with the importance of how we perceive our world. <<*

What Eco further emphasises with this argument is the significance of the scenographic structure and the staging of food, design or space as means of communicating primary functions simultaneously with encompassing a connotative socio-cultural significance. This perception is extraordinary, and is to me what binds the architecture and the culinary field together with the importance of how we perceive our world.

The role of architecture is as such very significant to the meal experience and the perception of food. But architecture is furthermore together with food an important means of human being-in-the-world and the comprehension of our culture and time.

Eco exemplifies this through the use of a spoon. To use a spoon, to get food to one's mouth is primarily the fulfilment of a function of eating. - For instance eating soup through the use of an artefact that allows and promotes that function. But as we say that the spoon promotes the function of its specific use, the artefact as well serves a communicative

function. Eco claims the spoon communicates the function to be fulfilled. (Leach 1997:183) Furthermore the fact that someone uses a spoon becomes depended on the eyes of the society observing.

- A communication of conformity and affiliation to certain usages and cultural norms. The spoon communicates a certain way of eating and signifies that way of eating as well as other potential functions even when it is not being used. This is what Barthes emphasises in his myths with the contextual significance and the understanding of objects as always being connotative.

So when Jacobsen chooses to design cutlery for his proposal for the SAS Hotel restaurant, considerations on the knife, fork and spoon are not just matters of practical use and ergonomics. But intentions towards an architectural stance stating aesthetics and form as objects of their contemporary time, culture, and place.

With his cutlery Jacobsen abandoned conventional forms and ornament in favour of curving planes of stainless steel plated with silver. It resulted in a design serving as light weight tools extending the body and carefully tailored to meet needs of both hand and mouth through the provided broad, flat surfaces for the fingertips and the narrowed tip entering spearing the food and entering the mouth. The soup spoon, however, was perhaps the most controversial with its asymmetrical shaping, unfortunately perhaps mimicking almost the utensils of handicapped too much. The cutlery despite its fascinating engagement into the meal became an object of ridicule and suspiciousness towards its practical use in fancy restaurants, and was eventually replaced by ordinary flatware in the SAS restaurant. (Sheridan 2003:247)

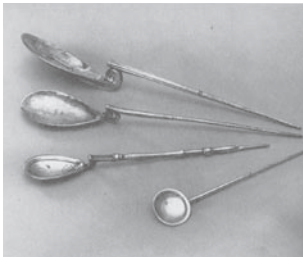


Fig. 4.6

Roman silver spoons; *Cochleare* and *ligula*

As early as during the Roman antique, spoons were shaped and sized according to specific use, and decorated by means of prosperity, thus not just being a tool or utensil, but representing and communicating social status and affiliation. Cochleare (the small one in front) was for eggs, snails and shellfish, whereas ligula was for more liquid dishes.

(Hannestad 1979:94)



Fig. 4.7

AJ Cutlery

Spoons for SAS Hotel Restaurant

With the smooth slim surfaces and almost sculptural shaping, the AJ cutlery breaks with conventional shaping of flatware – abandoning the ornamentation and division in handle and “blade”, instead exploiting contemporary skills within craftsmanship and processing techniques to form a highly sensuous and bodily related cutlery extending the body while eating.

(Thau & Vindum 2002:49)

Significance, staging of space and shape

As argued for with Hall, Merleau-Ponty, Barthes and Eco we never experience phenomena as isolated meanings, but comprehend phenomena as part of a larger dynamic situation of significance combining different meanings. – Over dramatises some compared to others, and in this interpretation finds our own understanding of the world. Which leads us to the essence on comprehending space and shape where the object and its actual shape is inevitably connected to the significance and intent the designer or architect assign it. It is therefore my conviction, that architecture can not and is not experienced as mere physical shape through sensations. But must be understood as part of a greater intention and architectural significance expressed through the staging and articulation of spatial settings, interior, and detailing as argued for in the last four chapters.

The myths of Barthes touch upon the importance of intentions not only in architecture but also in the food, and bind the two phenomena together in their coherent significance through the articulation of shape and signs. Eco emphasises the scenographic importance of both food and design in the constitution of socio-cultural norms and affiliations. - What is it then, the restaurant owner communicates as he articulates plates, tables, and meals - and decides to serve a specific appetizer, starter, main course, and dessert, or dress his waiters in a certain shirt or fancy outfit?

To elaborate further on these specific matters linking food with architecture, it has in the following chapter 5; *architectural staging*, been the intention with a case study of respectively Villa Hadrian and Madeleines Madteater, to encircle and exemplify the significance of architecture in the meal experience communicated through the staging and connotation of physical shape. This approach has been chosen with the final intention of being able to formulate a specific design strategy for the design proposal for a Millennium Triclinium for Figgjo, which enhances the meal experience through the careful notion of architecture as staging of bodily experiences and intentional communication on all scales and detailing levels.

>> Architecture can not and is not experienced as mere physical shape through sensations, but must be understood as part of a greater intention and architectural significance, expressed through the staging and articulation of spatial settings, interior and detailing <<

Fig. 5.0

Theatrical Masks
Second-century mosaic picture from Villa Hadrian featuring theatrical masks. It both reflects the refinement of Roman art both further gives a hint on the theatrical dinners occurring in the Triclinium during the Emperors festive banquets. (Stierlin 2002:150))



Chapter 5 ARCHITECTURAL STAGING

ARCHITECTURAL STAGING . A CASE STUDY

With present chapter I seek in continuation of the preceding theoretical study and the chapters 1, 3 and 4 to exemplify architecture as staging of the meal experience through a case study of two specific meal situations. My goal has been to investigate the significance of the meal and the overall food experience expressed by architectural means in scale and detailing of room, furniture, tableware, and the sense of food. The two unique meals situations selected are as previously referred to, respectively the historic *Villa Hadrian* (118 AD) near Rome in Italy and the contemporary restaurant *Madeleines Madteater* (2007 AD) in Copenhagen, Denmark. Both cases each represent epochal extremities within the culinary field of their times, but as well represents extraordinary cases of staging sensuous and elaborate food events.

My focus of the case study has been the significance of the interior settings and the specific architectural staging of the meal course. A study of how aesthetic considerations in all interior scales; room, furniture, tableware, and food, interact and form a sensuous level of detailing communicating an overall story or architectural intention as frames around our meal rituals, food experiences, social relations, and being-in-the-world as suggested in chapters 1,3, and 4 with both Pallasmaa and Merleau-Ponty. To achieve this perspective I have found it necessary to begin with an understanding of the course of events during the meal. Thus initiating the study with a presentation of the food experience and dinner course, then afterwards moving on to an actual room analysis investigating the spatial qualities and significances of each case.

The architectural analysis is as mentioned in chapter 2 based on the analytic approach developed by art historian Lise Bek: *Rumanalyse* (room analysis, red.), but is with the theoretical considerations of previous chapters 3 and 4 in mind, necessarily extended with specific notice on technique, sensuous bodily related experiences, architectural significance and implementation of external codes as time and context put forward by Barthes and Eco. As so the case study is, besides the two dinner course presentations, extended by a section elaborating on the significance of each case relative to context and time, and then finally rounded off by the architectural analysis formulated by Bek on each of the case scenarios.

With a comparative analysis of the two cases, my intention with present chapter is as such to encircle differences in context, socio-cultural relationships, space, architectural significance and intention. This as means to formulate a design strategy for the Millennium Triclinium for Figgjo as well as investigating and exemplifying which aesthetic values architecture can bring to the enhancement of the meal experience, and determine the relationship of room, furniture, tableware, and food in the eventful eating situation and showroom related promotion of Figgjo chinaware.

>> *My focus has been the significance of interior settings and the specific architectural staging of meal courses; a study of how aesthetic considerations in all interior scales; room, furniture, tableware, and food, interact and form a sensuous level of detailing, communicating an overall story or architectural intention as frames around our meal rituals, food experiences, social relations, and being-in-the-world.* <<

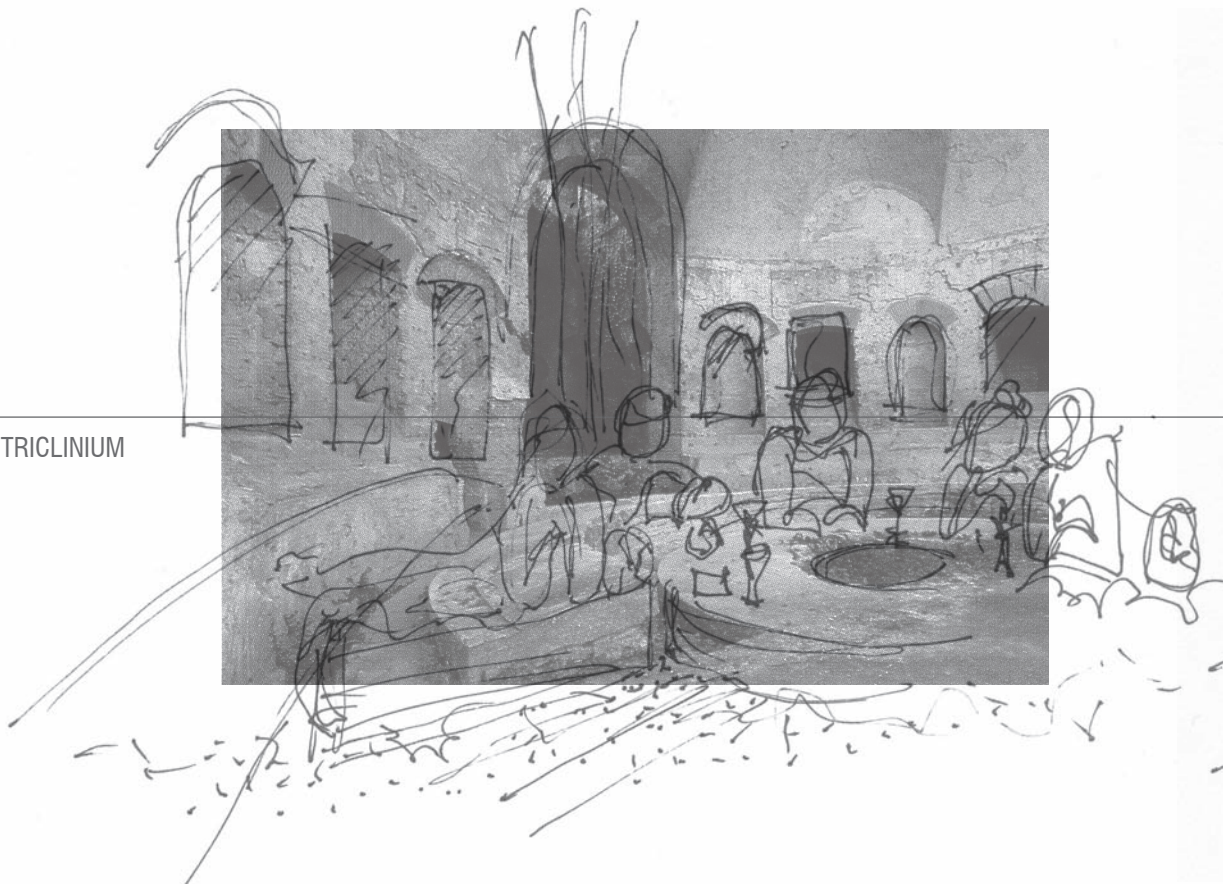
Fig. 5.1

Villa Hadrian vs. Madeleines

The two cases selected represent respectively the high rise of Roman Antique culinary skills and contemporary Danish high fashion within gastronomy.



THE TRICLINIUM



1. Attending the grand dinner guests gathers at the thermal baths for mental + physical cleaning. Afterwards they are taken to the grand dining room; the Triclinium and are each assigned a specific seat or couch among the hundred of places flanking the grand pool.

There is a strict division in seating. Everyone is seated according to rank and social status, thus having the host and most distinguished persons reclining at the stibadium at the end of the pool. Suddenly a large procession of slaves enters the room singing and dancing while they are performing ritual washing of hands and feet on each guest. Ending off with sacrifice to the gods, the emperor, and the genius of the host the dinner can finally begin.

2. The first dinner served is an amazing arrangement of donkey made in Corinthian bronze barring a double pannier with green olives on one side and black on the other. Above carrying to large silver dishes engraved with the name of our host and the weight of the silver. Little bridges welded into the silver dishes contain dormice dipped in honey and sprinkled with poppy-seed. Also hot sausages lying on a silver grill with prunes, plums and pomegranate

seeds are served. While eating, water cascades run out of the furniture into the grand pool and the canals around the Stibadium. Here the food is served at the edge of the pool and small tables flanking each person. Food decorated as swimming birds are furthermore arranged on small light dishes floating on the water creating a magnificent scenery. Now our host is carried in on a litter, placed among fabulous pillows, dressed in stunning scarlet fabrics and golden jewellery or ivory, accompanied by a salute and musical fanfare. He positions himself in place with the most distinguished guests at the end of the grand pool, half reclining on the stibadium facing the entire audience. Such glory, so much magnificence and prosperity surrounds him even silver toothpicks are used to clean his teeth before eating.

3. Now second course is served. Slaves carry in a large platter on which sits a basket with a wooden hen, her wings outstretched in the act of hatching eggs. To the blaring sound of music the slaves start rummaging beneath the hen handing out peacock eggs for each guest. Guest are eating with the plate in their left hand, provided with napkins for wrapping the left over food to bring home. Tables are



VILLA HADRIAN, ROME . 118 AD

"THE EMPERORS DINNER"

Fig. 5.2

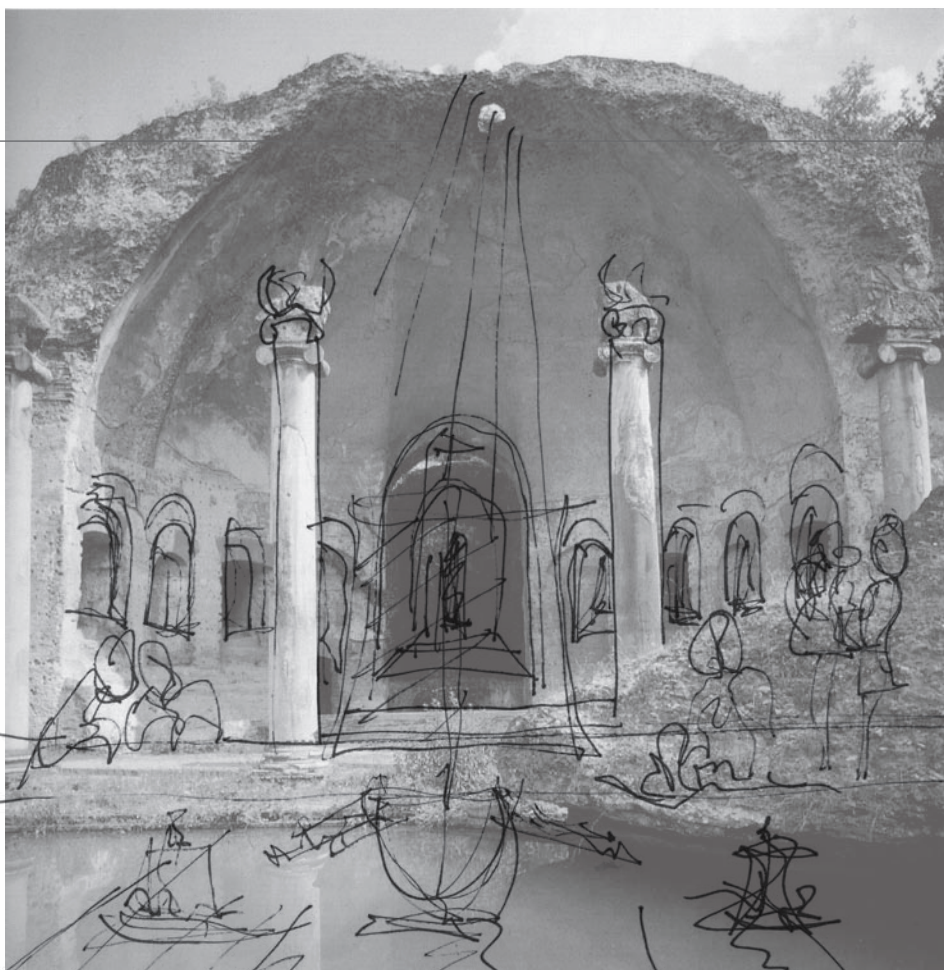
Villa Hadrian, Triclinium

The host and the most important guests are "seated" half reclining at built-in couches in the Triclinium, facing the remaining crowd and surrounded by cascades of water falling of the ceiling and running in grand pools and canals.

set with silverware which is specifically made for eating, - plates in different sizes, dishes, ewers, bowls and vessels decorating the entire room. Then silver spoons are handed to you as the only utensil to use besides your fingers. The spoon is especially used for eggs, snails and shellfish as well as the liquid food servings following. But the eggs are made of tick dough fried in oil, containing a small fig-pecker in spiced egg yolk accompanied by sweetened wine served in glasses of colourful hues, particularly blue-green with symbolic carvings and engravings. Now ending the second course and with the tables cleared, two long-haired Ethiopian slaves enters the room, with small leather phial pouring red wine at your hands, and every guest praises the host for his magnificent generosity and elegance.

Yet another slave enters with a skeleton made of silver, able to bend its joints and bones in all directions, forming a choreography of different postures while the host recites; "alas and alack, so miserable and so poor we are! Such we all become, when Orcus (death) takes us away, let us enjoy life while we can!"

4. Next course is a round dish carrying the twelve animals²³ of the Roman signs in order; Aries served with ram. Taurus served with stud beef. Gemini with kidneys. Cancer with a wreath. Leo with African figs. Virgo with a barren sow's womb. Libra with a balance scale carrying a bowl of pie and cake. Scorpio with a small fish. Sagittarius with a hare. Capricorn with chick-peas. Aquarius with a goose, and Pisces with two Mullidae. In the middle of it all squared turf supports a honeycomb. Bread is now served, moreover fat poultry, hares with wings mimicking Pegasus, and fish swimming in fish sauce like a pool - all the time slaves singing while serving. Suddenly slaves enters the room again, this time arranging coverlets for the couches depicting hunting scenes while Spartan hunting dogs bound into the room to herald the arrival of the next course; a grand tray with an massive wild boar on it. The host demands a spectacular wild looking slave dressed as huntsman to cut the boar's flanks whereupon thrushes fly out, circling the room until trapped and handed out to each guest. Barely have you eaten the wild boar before yet another grand game is carried into the diners; this time as well being butchered in front of you revealing hundreds of sausages and black puddings when slashed open.



MADELEINES MADTEATER, COPENHAGEN . 2007 AD

"ON THE EDGE"



1. Standing at the parking space you are met by a huge concrete building which if it were not for the grand yellow letters in the left top-corner spelling the word "Madeleines" mirrored, most of all would look like an old closed-down warehouse.

2. Entering one of the yellow gates at the far right of the building an amazing silence and infinite darkness embraces you, instantly drawing your attention towards the only light in the entire room; a spotlight illuminating a grand white china ewer standing on a tall, slim, wooden podium. Your coat is handed to a staff member, neatly placed among the others in one of the two wooden boxes at the right serving as wardrobe. Scattered in a circle around the ewer you and the remaining guests, whom you do not even know, are all closely aligned waiting to have your hands washed in rosewater by two priest-like women standing on each side of the illuminated ewer.

3. Following the process of purification each guest is separately leaden away; in between soft white swaying curtains, placed at mattresses humble and silent among the others in the dark. No sounds prevail only a shallow

existing whispering in the corners. Suddenly a spotlight is turned on in the middle of the very small quadratic room, illuminating a squared silvery box in the centre of the space surrounded by all the diners seated on the floor along the walls. In the centre of the box a woman dressed in black and white check-pattern stands surrounded by food and drinks while she is baking waffles and spread small pieces of bread. She is your hostess tonight and behind her in the white wall a television plays old episodes of the Danish TV-chefs; Conrad & Axel²⁴, demonstrating the skills of cooking, as she eagerly starts preparing dinner. Simultaneously a loud song; "Du skal børste dine tænder, hver gang du vasker hænder"²⁵ (you must brush your teeth every time you wash your hands, red.) starts playing and each guest is handed a red toothbrush and a white acidic tasting fruit powder to clean of the remaining profane taste off your mouth. Afterwards a sweet drink of blood-red sangaria and a small red piece of tatar is served directly in the hand to you. Followed by a lemon-like/olive-oil sorbet fed directly into your mouth with a spoon by one of the black-dressed male servants walking around the room. Furthermore a series of small deconstructed appetizers of liver pâté with cucumber, roe of salmon,

THE RESTAURANT



waffles with rum, and mushroom soup is served to you, before you is handed a warm cloth to once more clean your fingers.

4. Behind the translucent white curtain numerous light dots are suddenly occurring, proving to be more servants warring head lamps, who now gently guides you to the next room; the grand dining hall. Behind you in the centre of the box the hostess tiredly collapses above the silver desk. The dining hall is dark; only sensed through the illumination of the servants head lights, colourful slideshows being projected on the surfaces of the table and the loud sound of opera thundering across the room. You are leaden up a new podium, along a row of chairs and placed at long wooden table facing strangers both across the table and next to you. From your seating you have free visibility to the busy chefs working around the grand kitchen raised on yet another podium in continuation of the dining hall; again only illuminated by the bright white head lights of the kitchen staff. In the middle between the two long tables a long table is filled with plates, china, cutlery and food ready to being served, and at the sound of splashing and rippling waves and seagulls the first dish

is served; fish and soup eaten with a plastic spoon. While you are eating and the chefs are working in the kitchen, the hostess is busy peeling potatoes in the middle of the room and in-between she suddenly jumps up and happily cheers with all the diners. Before the next dish is served servants jumps on the tables and 20 meters long white linen cloths are gently swung on the two tables in the sacredly illumination of the changing slideshow. You are the spectator of the rituals of setting the festive table and at the sounds of birds twirling and playful shadows of forest trees on the tablecloth you are served smoked eel, snails, rowan-berries, and a green apple. Afterwards follows a mixed composition of grand old Danish hits by Kai Normann Andersen²⁶ and the hostess humming: "Jeg har fanget mig en myg" (I have caught a mosquito, red.) as she is serving black budding, ducks liver, and beetroot with ginger ale.

The hostess is now busy doing the dishes in the middle of the room and the chefs have replaced the headlights with lamps on the kitchen tables, preparing for the next serving. Immense pumpkins are taken from the grand ovens and are carried around the tables; lifting the lit and



Fig. 5.3

Madeleines "Food Theatre"

In the restaurant everything is turned into a grand stage, carefully orchestrating the entire course of dinner, from the movements of the guests to the food, light and music performed.
(www.hd.se, 27.12.2007)

purring the content directly into your plate and an intense odour of garlic and herbs embraces you. As the servants yet approach you the servings are the traditional Danish pork roast with brown gravy, then followed by deep-fried camembert, red berries and vaporized aquavit in a spray can.

5. The festive meal is then abruptly by the banging and crashing of Danish royal china being dropped on the floor to the tones of loud disco music; servants drop cutlery on the floors as well and the chefs start cheering louder and louder. Firecrackers start popping and the shadows of the servants and chefs are vaguely seen through the white curtains. The curtains are drawn back and the hostess invites you and the other guest back into the small white room. Here the previously sacred settings are now the frames around a grand party, where you are served chocolate and cake, homemade marshmallows and a dessert of raspberries and crunchy blue flowers all served in 70s style Del Monte cans; you are cheering and drinking Domaine de Bablut 2005 with the remaining guests, laughing and do not now what next to expect.

6. As always the entire evening is rounded off in the last of the sections, taking you the long walk along the dinning hall and the kitchen into a small dark section only lit by small lamps on the shallow tables. There is a diffuse, mystique almost poetic sense resting on the room with its dark, soft carpet, the over-scaled couches on the floor, the white wool blankets, and the black woven curtain embracing it all. Along the back wall hangs a grand metal automate; feeding it with a coin you draw a cup of tea and a small Madeleine cake and seated comfortably in the couches, half reclining, satiated and exhilarated; dipping your Madeleine cake in the tea, you reconsider the entire evening, discusses it with the person next to you and remember past times; when you where a child and when your mother used to serve these dinners. Suddenly realizing you are sharing secret memories with a person you four hours ago did not even know.

(Based on the newspaper articles by Liliedahl 2007; Christensen 2007; Wern 2007; Theil 2007)



ANALYSIS . CONTEXT + TIME

Both Villa Hadrian and Madeleine's Madteater represent epochal periods within gastronomy; representing respectively the foundation of the Italian cuisine and developments within contemporary cuisine as for instance elements of the Molecular Gastronomy field. Furthermore both cases represents an exploratory approach towards the comprehension of the ordinary feast or dinner course by enrolling the entire meal experience in a high level of theatrical performance, communicated by sensuous means as architectural scenography, mediation of light, music, dance, recitation, and live performance.

Villa Hadrian was built by the Roman Emperor; *Hadrian*²⁷ back in 118 AD. Looking at the architecture of Villa Hadrian in a wider contextual perspective the Roman period is known for its revolutionised skills and knowledge within architecture and building techniques. Exploiting in a genius manner the load bearing structure of dynamic circular forms as the arch, vault, and dome to cope with the tensions occurring by huge spans and heavy weight materials. Several of the buildings erected during the period still survive today demonstrating the climax and genius of Roman architecture by technical innovations as concrete or the repeated use of arches and vaults to create grandiose and imaginative spatial schemes. - A stunning example of these technical skills and curvilinear solutions, standing still today as the climax of the Roman architecture is the *Pantheon* in Rome, likewise built by Emperor Hadrian in 121 AD. (Stierlin 2002:7, 10, 153) The magnificent masterpieces of the Roman architecture as Pantheon in Rome, has founded our contemporary comprehension of architectural beauty through skilled considerations on technique, materials, light, spatial compositions, and architectural scenography staging a very specific experience, and adding a level of poetic significance to the mere physical matter of the building touching our physical and mental well-being, as emphasised in Pallasmaa's theories. As a strong symbol on the high rise of the Roman Empire the architecture of Villa Hadrian stands for a past time breaking the early dawns of our contemporary and highly modern understanding of fields of architecture. But furthermore the architecture with its interior and inherited knowledge passed on through time, it also stands as a point of origin in our contemporary knowledge on fields as Science, Research, Philosophy, and Fine Arts. (Stierlin 2002:7, 10) To fully understand the magnificence of Roman architecture and the significance of Villa Hadrian, we however, need to understand the mentality and beliefs being the driving force behind the whole civilization and time of history.

As seen with the dinner course of the Emperors festive banquets nothing is missing, and nothing is left to coincidence. Every little detail from the mosaic floorings depicting the brave scenery of the emperor's hunts and warfares, to the careful orchestration of slaves and chefs performing theatrical acts while serving and preparing the

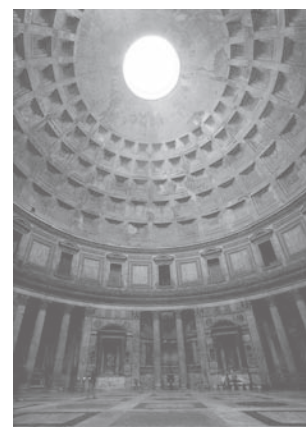


Fig. 5.4

Pantheon in Rome

The space of Pantheon inscribed within a spherical scheme, conveys an impression of indescribable grandeur both architecturally, technically and spiritually. (Stierlin 2002:156)

>> *The wide range of different foods served during the Emperors dinner is not just a matter of entertaining dinner guests and providing them with a good food experience, but is perhaps first and foremost a cultural means of astonishing the diners with the host's overwhelming prosperity and fine taste. Hence, demonstrating his social and political power* <<

food for the specially invited diners are accomplished with the outmost perfection. Those careful considerations on details in levels of interior décor, furnishing, tableware, preparation and serving of foods not only characterise the eventful meal courses. But can further be detected into the configuration of buildings, landscape and choreographed movements between the different spatial settings. Which I will later prove with the architectural analysis of Villa Hadrian. Generally the architecture of Villa Hadrian and the dinner course presented reveals a rich offer on exclusive details, pomp and splendour and tells of a time where interior spaces were calculated in every detail to provide extraordinary comfort and luxury.

The Roman Empire reached far, covering areas of Southern Europe, Northern Europe, and all the way from Morocco to parts of Libya, Algeria and Tunisia. (Stierlin 2002:8) The Roman Empire had in theory thereby almost unlimited access to a wide range of different foods and goods from various cultures. The gross offer on different foods and interior goods as tableware, carpets, pillows, and furniture made from precious materials and expensive products in far corners of the empire, made the food and architecture/ interior décor signs on extreme wealth, prosperity and social power. As only the extreme rich, clever and careful businessmen were able to get the finest of the goods and foods produced across the empire. (Strong 2002: 18) In Roman antiquity the enjoyment of food and drink was closely linked to the natural, spiritual and civilized world, and the dinner parties were important social functions not just fulfilling nutritional needs. As such the wide range of different foods served during the Emperors dinner were not just a matter of entertaining dinner guests and providing them with a good food experience, but are perhaps first and foremost a cultural means of astonishing the diners with the host's overwhelming prosperity and fine taste. Hence, demonstrating his social and political power. (Strong 2002:18; Hannestad 1979:86, 88) Therefore the different courses served during the dinner; the peacock eggs, the twelve animals, the snails, the oysters, the scallops etc. are presumably not just fine foods chosen for their gustatory taste, but foods chosen because of their aesthetic taste, and their high value as rare, exclusive, and expensive products purchased from far distances of the empire. The more different and rare foods together with decorative elements as ornamental trees, flowers, and exotic animals from all over various parts of the empire a host could please his guests with, the merrier and more wealthy he presumably was. The lavish and spectacular Roman feasts held by the Emperor were epitomes of their time, expressing an almost foolish strive for the unobtainable divine through material goods and sumptuous luxury. Thus to accommodate the physical, religious, decorative and gastronomic refinement of food, eating was elevated to an eventful ceremonial ritual and the dining room was given considerable importance as a background for artful and social

affairs through the effectual utilization of sensuous performance and elements of surprise. (Benzel 1996:33)

This logic, linking of amounts and rareness of foods with prosperity and social power, was not just equivalent within the culinary field, but especially also dominated the design related fields of architecture, interior design, tableware design, and clothing. As seen with the careful considerations on eating utensils as silver plates and spoons handed out throughout the entire dinner (see page 119). Furthermore this is the one aspect in my opinion, where the fields of architecture or design interrelate with the culinary field. Where the appearance and aesthetic taste of furniture, tableware and room decoration interfere with the artistic arrangement and serving of the food. In relation hereto it is seen both with the dinner course and the historical study presented in chapter 1 (see page 30-31) how the food to some extent tends to be more architectural, artistic or sculptural in its appearance, than actual being edible or at least consider the gustatory taste. As such the field of architecture takes over the field of gastronomy and the food in line with the expensive tableware; spoons, plates, glasses and exclusive dining room furniture become architectural elements staging the meal experience, and communicating social affiliation, enrolling the entire dinner in a defining narrative. - The architecture in scales of room, furniture, tableware, and food becomes charged with meaning, communicating a message and expressing itself through invention of a semiotic language, series of symbols – religious, political as social, accentuating a philosophy or narrative behind the building and embracing room as further argued for by both Eco and Barthes in chapter 4.

If we then look at Madeleines Madteater, the contemporary restaurant relative to the restaurants outlined in chapter 1, not only addresses the serving of the food differently, but furthermore changes the entire set-up around the food. With the function of partly public restaurant and partly a theatre and the severe focus on the meal as an event and exquisite experience, Madeleines becomes both a recreational offer of luxury and pleasure and a representative framework of culinary skills, state-of-the-art crafts and food science as an art form. The spatial settings thus combine space as a public facility of certain users and space as a showroom for the chef as performing artist or craftsman in an interlocking system.

The spatial settings of Madeleines adopt the theatrical use of stage settings and organises their restaurant space as a series of stage sequences structured around intimate and almost sacral atmospheres. Here bodily boundaries and personal relations are challenged spectator-and-spectator in between, but also spectator-and-servant/chef in between, as you are forced to dine among strangers – squeezed closely together as children on the floor, or half reclining in soft couches. Being fed directly in your mouth by strangers using spoons or spray cans as with the dinner course; “*On the edge*”. Spatially and behaviourally

>> *Eating was elevated to an eventful ceremonial ritual and the dining room was given considerable importance as a background for artful and social affairs through the effectual utilization of sensuous performance and elements of surprise.* <<

>> *The field of architecture takes over the field of gastronomy and the food in line with the expensive tableware; the spoons, plates, glasses and exclusive dining room furniture become architectural elements staging the meal experience, and communicating social affiliation, enrolling the entire dinner in a superior narrative.* <<

this architectural configuration is a severe break with codes of both the ordinary restaurants as presented in chapter 1, and the classical theatre. In the restaurant you are often not seated with strangers at the same table, and in the theatre you are often not allowed to talk during the performance. In both cases allowing for some degree of privacy in public domains. Furthermore the spatial arrangement of the stage settings reflects a precise choreography and position of each diner and performer during the feast, interpreting the course of a traditional European meal; *preparation and cleaning, an appetizer, main course, dessert and tea with cake*. (Visser 1991:196-210) With the architectural staging of the dinner at Madeleines, the configuration of furniture, movement of the diners, the eating patterns as well as the transcendent experiences of eating traditional Danish food in spectacular manners invites for social interaction among strangers. And the architectural style becomes not just a function promoting element, but emphasises social relations among strangers.

The comparison of context and time for the two cases of respectively Villa Hadrian and Madeleines both show significant use of eventful theatrical performance in scales of architecture, interior design and food as means to provide extraordinary sensuous meal experiences. In relation hereto the frames around the meal becomes highly important and there is for each case a close connection between the contemporary technical knowledge and means of producing foods and goods as furniture and tableware. As well as the performative means of creating the experience. With Villa Hadrian it was seen how the exclusive use of rare foods and tableware in immense amounts were used to astonish and dazzle diners at the feasts. The quantitative amount of tableware and food presented, together with the artistic expression and overwhelming effect of surprise were thereby means of communicating social power, political status and prosperity. In relation hereto the overwhelming effect of surprise and the artistic almost architectural approach towards the food and the dinner course as seen with Madeleines was not unique and something new within the culinary field, but could be dated as far back as the Roman Antique. However, the quantitative focus dominating the Roman period and the need to prove social and political status is probably not what drives the intentions of Madeleines in our modern times, but presumably instead a need of standing out in the gross offer on meal experiences provided with the rising amount of public restaurants. – A need of attracting customers by means of the good meal experience orchestrated as an eventful evening of astonishment, surprise and sensuous experiences. The meal and visit at the restaurant Madeleines become through the use of architectural staging and presenting food as an elaborate event a status symbol communicating affiliation among the higher cultural classes for the individual diner when visiting and eating there.

>> *A need of standing out in the gross offer on meal experiences provided with the rising amount of public restaurants. A need of attracting customers by means of the good meal experience orchestrated as an eventful evening of astonishment, surprise and sensuous experiences.* <<

In both the cases of Villa Hadrian and Madeleines Madteater the buildings or interior space carries a rich semiotic meaning through their architectural significance. And Villa Hadrian stands as an architectural

legacy passed on to us through time with the Romanesque Period, the Renaissance, the Baroque and the Neoclassicism still influencing us today (Stierlin 2002:11), but also the food and the culinary theatrical performance, indulging architecture and design in small-scales of tableware and food arrangements have been passed on, as it is obviously seen with the eventful dinners of Madeleine's Madteater. As such the two cases stand as specific examples of how the architecture reveals a narrative layer imposing our bodily comprehension of space, and communicating stories on affiliations as philosophy, religion, social power, and status in scales of buildings, room, furniture, tableware, and food, as argued for with the previous chapters of present theoretical part.

A further study, of how these narratives and connotative meanings are communicated through the configuration and orchestration of architecture in scales of room, furniture, and tableware are further elaborated on in the following section; representing the actual architectural analysis of the two cases:

ANALYSIS . CANOPUS, VILLA HADRIAN

As emphasised with the preceding chapters Villa Hadrian is located near Rome in Italy and dates back to approximately 118 AD. Here the Roman Emperor Hadrian built a palace comprising some 30 buildings reconciling landscape, water, building, eating and living in a grand area of mountains, hills, forest and water streams. One of the more significant building parts of the entire palace is the *Canopus*²⁸ encompassing a *Triclinium* (a Roman dining room, see also note 1 Appendix A6). The Triclinium of the Canopus in Villa Hadrian is reconfigured into a set of choreographed waterworks, spaces and built-in furniture all staging the extraordinary feasts or banquets held there by the Emperor Hadrian as described in the above dinner course. (Stierlin 2002:160)

During the 1950s and 1970s several excavations were conducted around Italy, revealing important architectural sites as the area of Villa Hadrian. Here architectural structures, sculptures, mosaic floorings, wall paintings, furniture, and tableware were found revealing a lost period of splendour and luxury. The site of Villa Hadrian can still be visited today, and with its ruins of the Canopus it lures some of the magnificent feasts being performed there.

Shape: Villa Hadrian's Canopus and Triclinium was built in a grand water garden formed by a 119 metres long artificial outdoor canal flanked by series of pavilions, religious statues, graceful caryatides and threes. This canal is further terminated at each end by an open portico and a semi-closed building structure called the Serapeum. During the dinner parties and banquets the most honoured guests

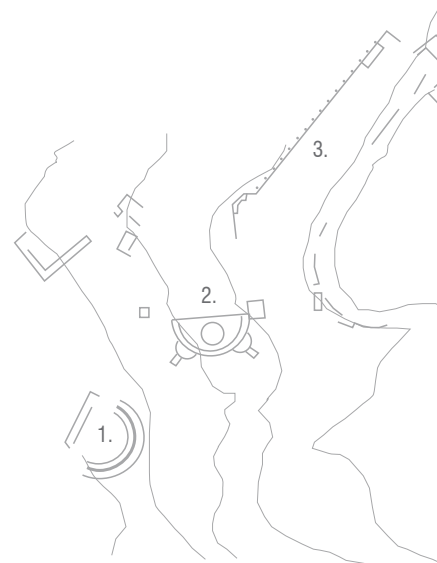
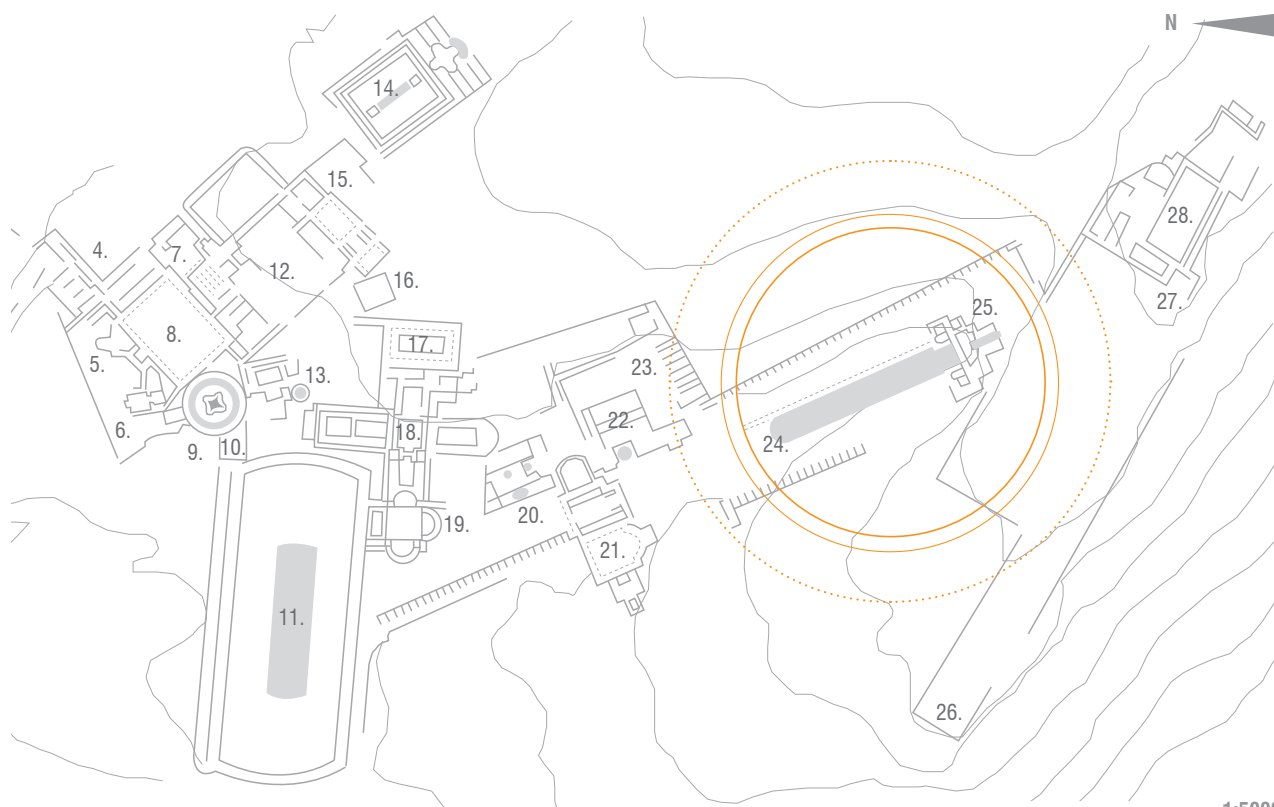


Fig. 5.5

plan, Villa Hadrian

The above illustration is a general ground plan depicting the arrangement of the palace area of Villa Hadrian, encompassing nearly 30 different building structures. (plan from Stierlin 2002:160)



1:5000

general ground plan

VILLA HADRIAN, TIVOLI NEAR ROME IN ITALY

- | | |
|--------------------------|------------------------|
| 1 Theater | 20 Lesser baths |
| 2 Tholos of Venus | 21 Vestibule |
| 3 Terrace of the Temple | 22 Greater baths |
| 4 Guest accomodation | 23 Praetorium |
| 5 Latin Library | 24 Canopus |
| 6 Greek Library | 25 Serapeum |
| 7 Republican Villa | 26 Tower of Roccabruna |
| 8 Library courtyard | 27 Academy |
| 9 Teatro Marittimo | 28 Temple pf Jupiter |
| 10 Hall of Philosophers | |
| 11 Poikile-Hippodrome | |
| 12 Courtyard | |
| 13 Heliocaminus | |
| 14 Piazza d'oro | |
| 15 Doric Pilasters | |
| 16 Barracks | |
| 17 Portico of fish ponds | |
| 18 Garden Stadium | |
| 19 Three-axedra casino | |

and the host was “seated” in the Triclinium at the *Serapeum*, while the remaining guests were seated on smaller couches or pillows along the two sides of the Canopus canal. The Canopus was located south of the greater thermal baths in-between the periphery of the main palace complex and the Academy area overlooking the far reaching Italian countryside and scenic landscape on both sides (see figure 5.5). The Serapeum forms a large exedra covered by a concrete vault being 22 metres in diameter (equivalent to Pantheon’s radius), built into the hillside. The Serapeum is further characterised by the appearance of a huge semicircular iwan encompassing a quadratic entrance pool linking the grand Canopus pool with the arrangement of the Triclinium in a semicircular built-in dining furniture; the *Stibadium*. Thus creating a very specific series of plateaus and spaces forming the actual Triclinium. The Stibadium is built by several platforms, each platform forming couches slightly raised above the next to form a graduate arc in front of the entrance pool and the Canopus canal making the honoured diners of the arrangement overlook the entire area of the remaining guests and visa versa. The colonnades together with the circular shape of the built-in furniture add a directional axis or almost symmetrical line across the area towards the Stibadium inside the Triclinium creating a strong visual focal point towards the centre place of the entire space. This spot of course being the place of the host; Emperor Hadrian during dinner parties and banquets, also further emphasising the strong attention towards the host's top position.

The Serapeum further features a very complex series of semi-circular structures around the Triclinium and central Stibadium, leading to several smaller apsidal bedroom chambers and latrines adding a sense of infinite depth to the space. Around the slightly sloped Stibadium couches comprising the centre of the entire Triclinium nine niches highly decorated with sculptures are carved into the curved stone walls further emphasising the visual sense of the three dimensional circular space, uniting floor, wall, ceilings and furniture. This is further underlined by the patterns in both floorings and ceilings growing up and down the walls merging the room and forming an interior landscape of various cavities and small embracing niches. The most central of the niches placed in the axial symmetry line of both pools and the central place of the Stibadium, opens up into a glittering veil of cascading water behind the central and most elevated position (that of Hadrian) and leads further into an artificial dark grotto approximately 20 metres deep, penetrating the hillside. The grotto referred to as the *Penetralium* or *Nimphaeum*²⁹ features yet another pool connected to the main pool of the Canopus by a series of underground pools linking the grotto with the Stibadium, the Triclinium, and the grand area of the outdoor Canopus. The enormous nimphaeum accommodate satellite rooms and smaller canals for floating food to the three levels of the diners reclining at the cushion couches in the Triclinium. The grotto further served as a private dining room for the emperor and his most intimate circle after the more public part of the grand feasts had been held. (Benzel 1996:136) The grotto is illuminated from a

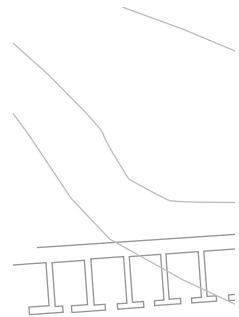
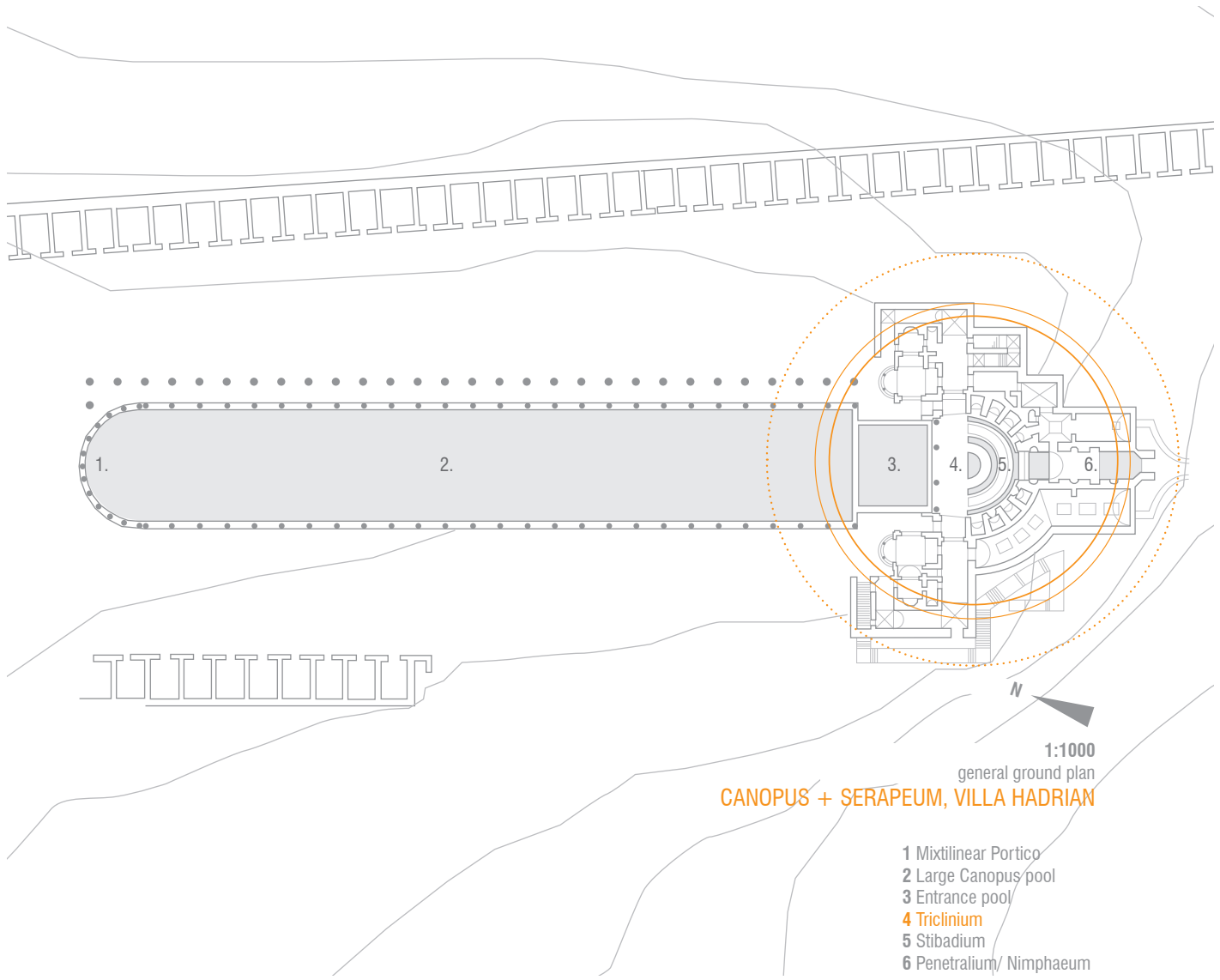
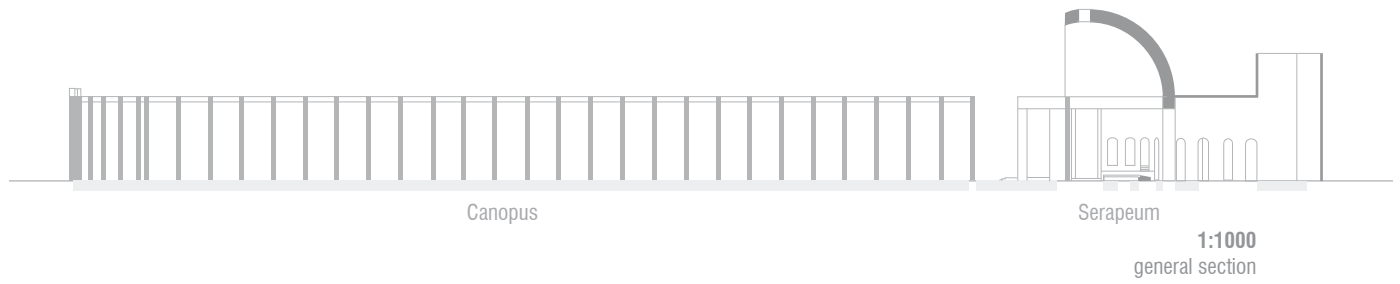


Fig. 5.6

plan + section, Canopus
Canopus area encompassing both Triclinium with the Stibadium for reclining during dinner, and the grotto for private sanctuary.
(by plan in Stierlin 2002:166)



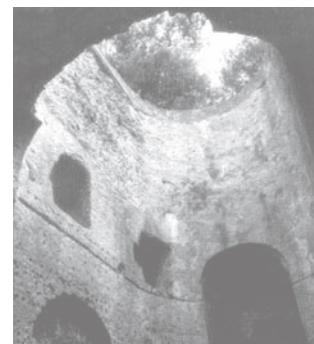
magnificent tube-shaped skylight casting a dim, mysterious almost profane and sacral light into the space, drawing attention towards the embracing space revealed with the otherwise circular and dark room. Simultaneously accentuating and framing the position of Hadrian in the Triclinium further. From this grotto with its concentric pools the sound of cascades of water echoes inside a succession of peripheral vaulted chambers, creating spectacular scenery of light, shadow and water in the Triclinium. At the back of this dark grotto, with water all about it and only lit from a strong roof light, the atmosphere strongly resembles the sense of walking in a forest or the cave of Plato. Embracing your entire body, creating a poetic sense of space and touching something primordial and instinct in you as emphasised with the theory on phenomenology by Pallasmaa. It almost encompasses a cosmological significance around the central stages of grand pools and built-in furniture; forming a stage for eventful feasts and initiation ceremonies. - A sanctuary for the emperor and his companions.



The architectural composition and patchwork of separate building parts, shifting axes over undulating land, and the complex series of spatial configurations archived an extreme variety, complex spatial connection and a remarkable relationship to the surroundings providing a continuous blend of building, garden, and countryside. This continuous exchange between small compressed rooms leading to grand open rooms, and the detailed work with niches, built-in furniture and vaulting ceiling creates drama and invites for strong bodily movement as emphasised in the introductory study and the theory of phenomenology with both Merleau-Ponty and Hall. The scenery shows the Roman expertise in manipulation of three dimensional space, where sequences of rooms altering in sizes, changing ceiling heights, differentiating levels of light and built-in furniture creating niches and cavities as contrasting elements in the grand spaces enhances the sense of three dimensionality and one grand floating space. Within the architectural enclosures and sequences of compressed and released space, cues to bodily movements are further elaborated emphasised by the use of light along the central axial paths and to enhance specific focus points as for instance the centre of the grotto behind the Triclinium.



The additive quality of the space expressed through the rich interior decoration and the utilisation of water as spatial elements creates an environment of movement, texture and mediation. And the wealth of the architectural concepts, the technology like combined water pools, cascades of water and sensor released aromatic oils into the room, the grand vaulted constructions, the play of interior and exterior all contributed to infinite richness in technical solutions and in moods of expressions emphasising the Romans love for change, novelty, and fashionable interiors with exotic imported materials. This furthermore results in a characteristic and rich use of patterns in ceilings and floorings, geometric arrangements, interlocked squares and circles, concentric organizations, interwoven bands, encircling rosettes;



designs all based on the characteristics of textiles, carpets and pillows which further pride the furniture of the room. The arrangement of rooms and spaces specific to each other, their spectacular furniture and their mutual use of compression and release of light and space are used to provide specific desired experiences of space and atmospheres underlining the religious role of the space and the power of the emperor. However, the cascades of water also had a pure technical and functional aspect, serving as cooling and relaxing indoor climate. The keywords are ostentatious displays, opulent embellishments and a theatrical architectural approach, creating embracing and rendered spaces with skilled perspectives and focal points forming arenas or stage areas emphasising the physical as well as social and religious position of the emperor.

Practice and function: The Canopus area together with the Serapeum and Triclinium forms the architectural frames around grand feast and banquets held by the emperor Hadrian. But simultaneous in everyday life resembles a strong religious space honouring the different gods of the Roman antique belief. Beyond the necessities of shelter, and the more exclusive function of celebrating festive banquets the architecture of Villa Hadrian consists of a series of spaces intended to express the various facets of the emperor and the social and political roles he assume from a religions point of view. Since the Hellenistic period, the emperor was considered a companion of the Roman gods worshipped, and he was almost a god himself present in person on earth. To honour his companions, several religious statues each demanding their own sacred space and surroundings were occupying a huge majority of the spaces of the Canopus, and dominate much of the visual appearance of the space. (Stierlin 2002: 162) The architecture of Villa Hadrian with its two-sided purpose of feast/entertainment and honouring of both emperor and religion is a magnificent example of the archetype later developing into the grand banquet structures in the Romanesque and Renaissance period. And forms the basis of an architecture staging the wealth and power of the host, as described in chapter 1.

In Villa Hadrian the two-sided use of the dining area likewise results in two levels of spatial engagement. – One level optical or strongly visually focused using the symmetry of the architecture and the different spatial compositions as doors, windows, columns and furniture to frame specific views of religious statues, surrounding landscape, and the position of the emperor. – And another level being the actual level of bodily movement, which is highly different from the visual axis and focus points in the architecture. Here pool areas, levels of built-in furniture and lowered wall elements obscure the physical movement relative to the visual. Instead forcing the body to move around corners, up-and down stairs engaging physically with the architecture and the built-in furniture. The architecture becomes a theatrical scene orchestrating a narrative in its self, creating a magic illusion and an intense sequence of spaces providing a specific course of movement during the banquets. And simultaneously strongly engaging with the

Fig. 5.7

Above:

*The Serapeum, Villa Hadrian
(wikipedia, Villa Hadrian, 2007)*

Middel:

*Grotto entrance, Villa Hadrian
(wikipedia, Villa Hadrian, 2007)*

Below:

*Grotto skylight, Villa Hadrian
(Horwitz & Singley 2004:32)*

bodily self as argued for by respectively Pallasmaa, Hall and Merleau-Ponty in the previous chapter.

Scenography and socialization: The architecture through its significance as theatrical setting around the dinner banquets becomes a frame around social intercourses, political manifestations and religious concerns of the Roman emperor Hadrian; emphasising social hierarchy and proving the emperors social status on top of society. - This through both architectural visual means and an outstanding luxury in material goods as food as previously argued for in the historical outline of chapter 1 and 3. In the Canopus pool area and the Triclinium this is evident by the scenography and configuration of geometrical building elements and interior structures forming symmetrical axis and specific focal views towards the interchanging religious sculptures and the central seating of the host and emperor himself in the Triclinium. As such the other guests seated along the two sides of the Canopus canal, lowered and distant to the raised area of the Triclinium are all placed facing his centre from the far distances of the river banks and only vaguely participates in the magnificent play occurring at the high table area. The arrangement of the built-in dinner furniture; the Stibadium as a semi-circular and raised element in the Triclinium thereby becomes a scenographic indicator forming an entire stage area in itself, emphasising the social position of the emperor and his honoured guests relative to the other diners. The architectural means of scenography and framing views to emphasise the social status of the emperor is further enhanced by the lavish and sumptuous use in interior décor as furnishings, vases, fabrics, tableware, lamps, flowers, scents, and tastes where the abundant amount of items further emphasises the emperors powers and wealth as referred to in chapter 1. Finally the close bodily contact provided by the half-reclining positions at the Stibadium couches and the eating mainly by fingers invites for a more intimate social relation among strangers than the contemporary dinner furniture of chairs around a formally set table.

Iconography and intention: The dinner course at Villa Hadrian utilises the sensuous and connotative aspects put forth in the theoretical chapter on phenomenology and semiotics to provide extravagant and exclusive meal experiences, satisfying you both gustatory, visually and tactile by strong means of live performance and a rich and sumptuous spatial decoration and architecture endeavouring all the senses of the body.

In Roman antiquity the enjoyment of food and drink was closely linked to the interrelation of natural and spiritual world, and even though dinner parties were important social and political functions, the act of eating was inextricably linked to religious celebrations also, as argued for previously. (Benzel 1996:32) This can be seen by the Romans lifestyle and architecture being highly associated with landscape, water rituals and a strong belief on their religion and gods. Landscape was seen as a representative of an ideal garden in another



Fig. 5.8

Statue of Euripus

Facing the Triclinium stands the statue of Euripus under the portico in the northern part of the Canopus pool area. (Watkin 2000:75.)

world, a kind of paradise (not the Christian one!); a desired mythical space which opens up an irrational world aspiring more than ever to an eternal and superior human reality. (Stierlin 2002:115) This is especially evident with the architectural articulation of water in different manners; incorporated in furniture, and used as an interior and exterior spatial element to emphasise the focus on the religious sculptures, as well as performed with the numerous wall paintings, frescoes and lavish meal servings depicting religious acts. With the strong religious underplay of ritual and artifice the classical architecture points toward a perennially felt connection between embodiment and inhabitation; a being-in-the-world expressed through the celebration of immortality on earth. Hence, the aspects of connotative significance and the means of providing an architecture addressing all the senses as argued for by both Hall, Merleau-Ponty, Pallasmaa, Eco and Barthes is with Villa Hadrian highly utilised to create a theatrical dinner setting.

Appearance and perception: The Canopus and Triclinium at Villa Hadrian uses the architectural scenography as a theatrical setting to create a highly sensuous and spectacular experience around the festive banquets and dinner parties held there to celebrate the emperor. Through mediated means as cascading water, optical tricks, specific visual focal points and an outstanding richness and splendour in interior décor the architectural means are used as supplements to the culinary means of food to create surprise and astonishment among the diners. As earlier emphasised the gustatory taste of the food is not the most important feature of the dinner, but instead the aesthetic means of quality, significance and sumptuous quantities of spectacular food, luxurious fabrics, silverware and interior décor to put attention towards the manifestation of the emperor and his power.

With the theatrical approach both within architecture and gastronomy, involving musicians, large casts of servants, and figurative foods the means were to create astonishment and surprise; and the Roman feast came to epitomise the aspirations of an entire age and period through the lavish sight on the architecture as staging of specific meal experiences.

Fig. 5.9

Stibadium of the Triclinium
A system of concentric canals and rooms penetrating the deep hillside formed a stage for initiation religious and festive dinner ceremonies.
(Stierlin 2002:169)



ANALYSIS . MADELEINES MADTEATER

Madeleines Madteater is as referred to in chapter 1 and chapter 2 a relatively new initiative within the Danish restaurant business, and they have become famous for their challenging approach towards the ordinary perception of a restaurant meal through the performance of the dinner as a thoroughly planned theatre play. The perception of the restaurant dinner takes its point of departure in the theatrical staging of food through different scenographies in spatial configurations, light, sound and digital media. As well as a thoroughly planned performance of actors and waiters serving the food. The show: *"Lige til Kanten"*, (on the edge, red.) is the first performance by Madeleines which have been reviewed both as a theatre play and a restaurant in the newspapers, and had great reviews from; *Information*, *Politiken*, *Berlinske Tidende* and *Helsingborg Dagblad*.

The show *"On the Edge"* was performed at 7PM each Thursday, Friday and Saturday during the period 30.8.2007 -7.2.2008; allowing for a party of 20-70 persons. Tickets are purchased at BilletNET at the price of 1200,- dkk per diner.

Shape: Approaching the restaurant Madeleines Madteater one is immediately met by a grand old warehouse constructed from dark-grey reinforced concrete elements, located on a deserted parking space at the outer part of Copenhagen. The restaurant encompasses a 1000 square meter big, two-story high open space. The place is characterized by dark concrete floorings and a lonely row of small window gaps along the southern side of the building resulting in an infinite dark covering the entire space and never revealing its true function as a restaurant through neither exterior nor interior.

The interior space features no permanent structures or furnishings beside a small L-shaped double-high concrete box (containing dishwashing, administration and toilets) interjected in the lower left corner of the space. The remaining interior is open allowing for a flexible moulding of partitioning walls and furnishing.

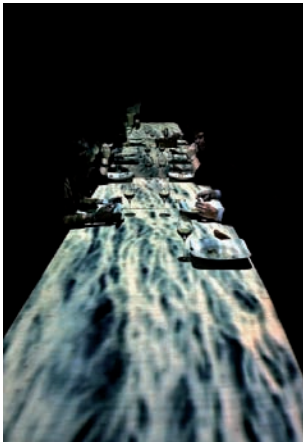
During the performance; *"On the Edge"* the interior is formed by flexible modular settings using dense, perforated, and translucent textiles hanging vertically from the ceiling, figuring as partitioning walls, and wooden podiums rising off the floor, a step above ground level. Together the textiles and podiums encircle and close off four individual rectangular spaces within the overall space. Those four sections are strictly aligned along the northern side of the warehouse, constituting an invisible sectioning along the longitudinal direction. Further working as a structuring element dividing the spatial settings into two major spaces; a long narrow one featuring the more stationary interior elements, windows, doors, storage and staff facilities; and a wider one, encompassing the four flexible room sections which constitutes the actual eating and kitchen facilities. The four settings frame individual

Fig. 5.10

The dinner table

The wooden surface of the long dinner tables becomes almost alive and fluid with the mediated illumination projected on the surface. Furthermore the light adds a mediated layer to the food on the plates.
(www.hd.se, 27.12.2007)

activities of each section characterised by their different furniture and forms a series of stages or courses of events, simultaneously inviting for vertical movements among the different sections in an otherwise flat room. At each of the stages the consequent tripartite arrangement of wood or metal furniture forms a longitudinal and cross-sectional symmetry together defining an invisible centre. Underlined through the geometrical shaping and arrangement of circular detailing in the otherwise rectangular furniture in the exact point of the centre. Thus drawing visual attention and inviting for circular movements around the centre. Simultaneously this centre and the centrelines of each section define angle views and focal points in the room, and represent the tension and spatial complexity occurring as the lines of each section are twisted relative to each other. As so there is no single fixed focal point or centre of rotation of the overall room. But rather a sequence of minor focal points together forcing a movement between the different room sections to fully comprehend the space. This is further emphasised with the artificial lightening, where each section is articulated through the spotlights focusing on the centre points and table surfaces. One section at the time, leaving the residual space in indefinite darkness.



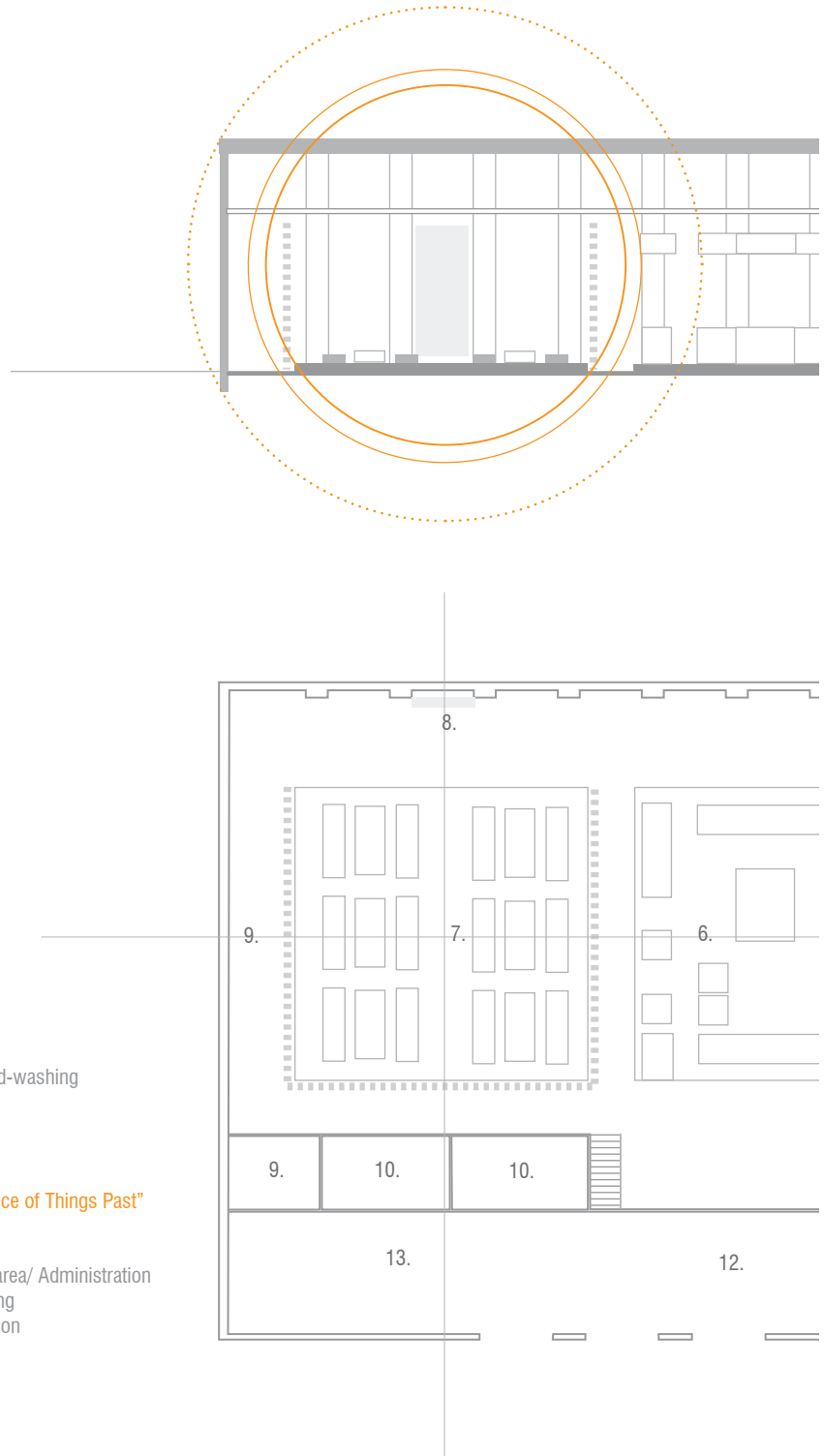
The illuminating articulation of surfaces changes material and texture perception, adding a plastic and soft character to the otherwise scabrous wooden surface of the tables. The choice of materials is rather consistent, featuring dark-concrete as the overall stationary elements and then gradually defining soft and hard surfaces, varying from dense to perforated and translucent materials mainly in the colours of white and black. The use of different textures and translucencies in materials allow for different levels of visibility between the four sections. For instance a diffuse almost poetic atmosphere is created with the perforated black textile made by carbon treads revealing section no. 7 (figure 5.11), whereas a translucent sacral effect revealing only shadows of movement is achieved with the white, thin flannel textile enclosing section no. 4 (figure 5.11) And finally the hard, dark and completely dense felt walls of section no. 5 (figure 5.11) totally cuts off further visibility limiting the visual space. The sensuous play of textures both cuts off the sections from the surrounding space with their dark opaqueness and binds sections together through translucency and diffuse senses of movement and shadows. This is further emphasised through the illuminating articulation of surfaces as tablecloths, curtains and china. The play of perception between the white colour and the darkness as a background erasing surroundings and cutting each experience free of a spatial context.

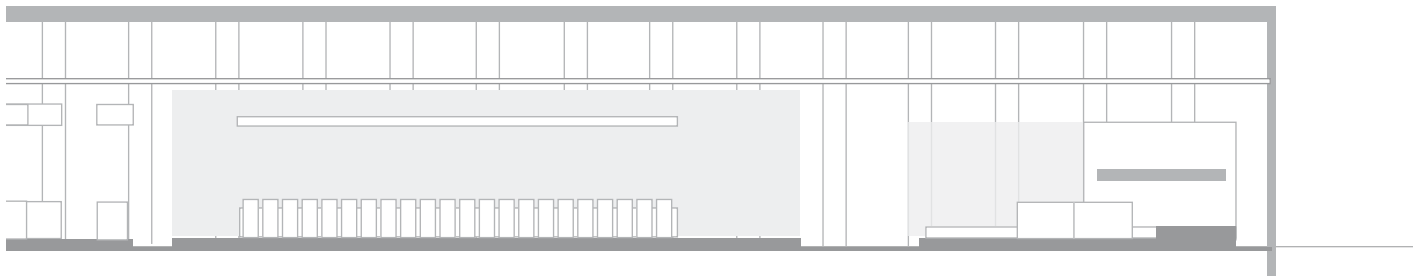
The levelled spaces and partitioning into minor room sections by the use of textile hangings offers different patterns of movement, deliberately twisting the approaches of each section according to each other and varying levels of visibility across room sections. Playfully the

Fig. 5.11

plan + section, Madeleines

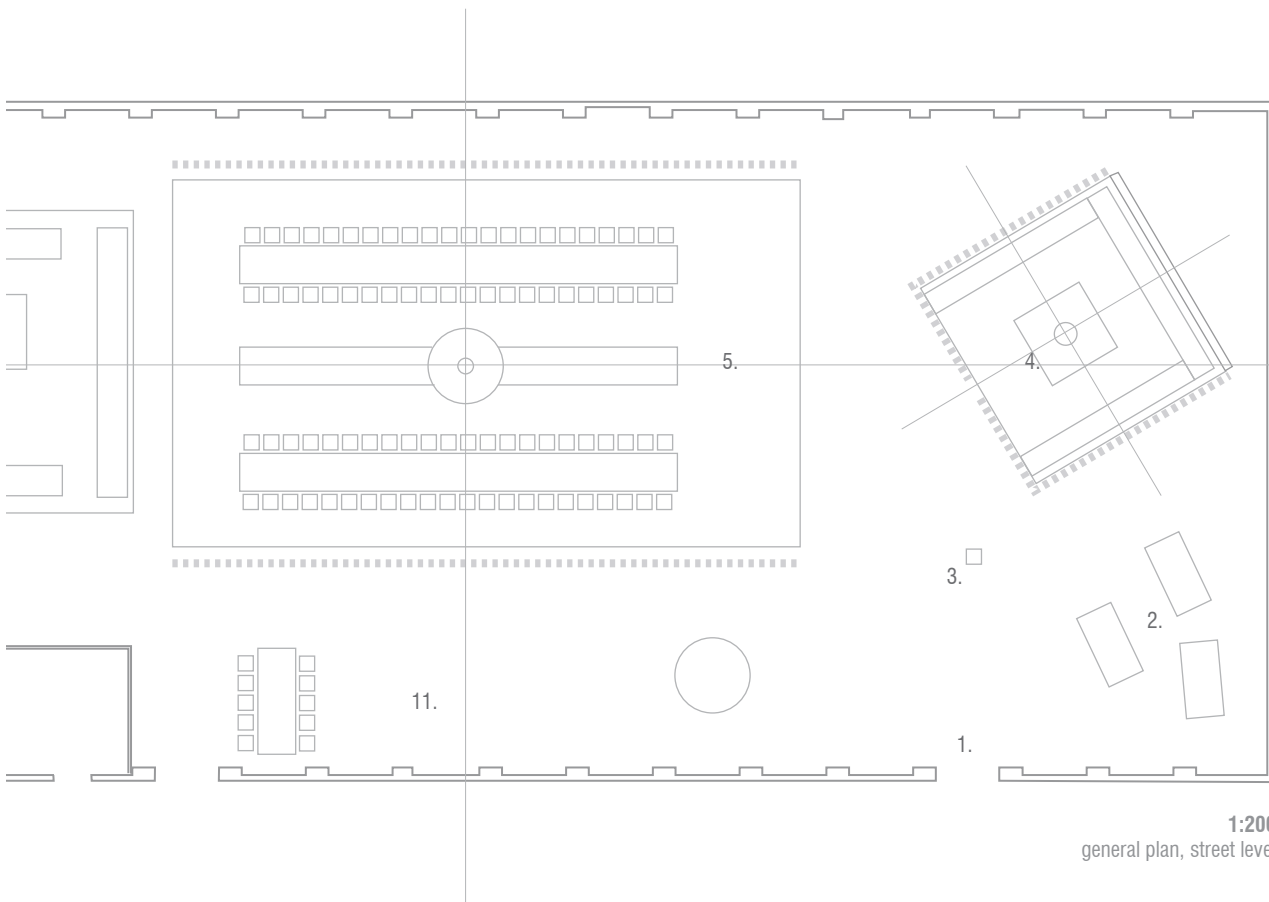
*The restaurant is located in an old inventory and as such strongly characterized by the grand open space and the rough concrete surfaces.
(Own Illustration)*





1:200
general section

MADELEINES MADTEATER "ON THE EDGE"



1:200
general plan, street level

course of spaces differs in room atmosphere and sense of privacy. Offering contrasting sensations of compressed intimate dark spaces and wide open spaces. Pushing the body in between curtains, walking up podiums, turning corners, loosing visibility and sense of the overall room. Furthermore challenging bodily relations with varying arrangements of furniture. Inviting for close bodily contact man-to-man and man-to-furniture and embracing bodily sensations not ordinary met at restaurants or theatres. The different zones of the space is beside the accentuation of podiums and textile hangings further emphasised through the careful considerations on colour and texture in furniture and interior decoration underlining the formality and atmosphere of the food served. Peaks and highlights during the meal is furthermore accentuated through patterns of movement between the varying stage settings, the interior design, use of furniture and tableware as well as the use of light, media and sound. The architectural style as shaping structure becomes a series of individual stages, where the surrounding space due to the articulation of light is dissolved into darkness. Thus emphasising architecture as staging through defined enclosed sequences of space, specific focal points, courses of movement and physical interaction between room sections.

Practice and function: Madeleines defines itself as part restaurant and part theatre, addressing a public audience with specific food performances. In this way Madeleines as a functional type places itself between to classical functions of public eating and live performance. Historically the restaurant primarily worked as a public eating facility, having each dinning company placed at separate tables not interfering with the other guests, but individually being served by their wish. Kitchen, administration facilities and storage had no considerable importance, but where mainly limited to the use of the staff, whereas wardrobe, eating facilities, and toilets were public available zones (Spang 2000:2). Likewise, the classical theatre was functionally divided into public- and service-minded zones providing two levels of spaces as in the restaurant. Traditionally the theatre had a central stage facing all audience simultaneously, fixing the spectators in a specific spot during the entire performance (Curl 1999:666).

In Madeleines the fusion of restaurant and theatre likewise result in two levels of movement and functions, dividing the space into dinner related public zones; wardrobe, eating facilities and toilets, - and service organs; kitchen, administration office, dishwashing and storage limited for the staff. However, the spatial arrangement of the functions together as an architectural setting challenges the ordinary room structure of both theatre and restaurant, by articulating the kitchen (no. 6, figure 5.11) as an open stage with a clinical laboratory-like appearance in between three different eating environments and forcing the audience/ diners to physically move around the different eating zones (no. 4,5,7). The audience thereby become part of the performance in line with the serving actors, though, still having the food and the chefs as the main characters of the overall play. The



Fig. 5.12

The restaurant

In Madeleines the preparation of the food becomes as important a part of the dinner as the actual act of eating.
(www.hd.se, 27.12.2007)



Fig. 5.13

The furniture

The wardrobe is as well as the tables made in plywood plates and jointed together by use of black Velcro. (own photo)

administration and storage space are carefully arranged as an outer circle around the performance settings, exploiting the theatrical use of darkness and textile hangings. Creating backstage areas and visibly making the service areas disappear, instead focusing all movement and activity around the four stage settings.

Technically the spatial arrangement further imitates the unrefined theatre structure, exploiting a large system of metal tracks in the ceiling to attach projectors, lights, power and water supplies, leaving the entire floor open for flexible moulding and varying stage heights. Going into detail the flexibility of the interior is clearly expressed in the modular way of thinking and simplicity in assembly of furniture as tables, wardrobe and stage sets. Wardrobe and tables are assembled in the corners by large black Velcro-bands binding the individual elements together, allowing for a grand variety in size, configuration and function, as well as making each individual module easy manageable and small in size. Together with the modular system of furniture arrangement, the simplicity of dark and bright colours and material use, functionality and practise become two important means of the overall aesthetic expression. The architectural staging and use of modular interior elements furthermore allows for a highly changeable scenography in a split of a second if demanded. However, in very few means as detailing in texture, movement, lightening and play of translucency, the refined simplicity still allows for a sensuous and bodily interaction with space, furniture and persons, and the dramatic storytelling effect seducing the dining audience.

Scenography and socialization: Through its signification as staging architecture becomes a frame around social being and triggers bodily and human interrelation as previously argued for. In Madeleines this is evident with the partly built-in interior elements as tables and seating which become scenographic indicators seeking to detach the diner from ordinary cultural norms and behavioural patterns. Instead the arrangement of seating and tables seek to challenge bodily positions and interaction with tableware. Thus inviting for new meal perceptions and social relations. Through the architectural staging of the feast as a theatre play Madeleines focuses on the meal as a social frame and food as an object of severe rituals and cultural values, as referred to in chapter 1 and 3. This social function is distinctly communicated through the articulation of spatial interior arrangements; the close bodily relations and forced interventions with strangers during eating as seen in the case of Villa Hadrian and some of the historical examples of banquets during both Roman, Medieval and Renaissance times – arranging people closely along tables or on couches while eating.

Iconography and intention: Madeleines incorporates the elements of phenomenology and semiotics found in chapter 4; fitted the exploratory agenda of contemporary gastronomy, time, knowledge and place, to provide extraordinary meal experiences, not just satisfying us gustatory

and nutritional. But through a highly sensuous and bodily focus providing us with an experience of being-in-the-world through relations of presence and past memories expressed both with the architectural settings and the food. The bodily related theories of architecture, experience and memory put forth by especially Merleau-Ponty and Pallasmaa as such becomes the distinctive aesthetic features in the interior design of Madeleines where different spatial stage settings and built-in furniture constitutes an outright and immediate relationship between architecture, food and diner, expressed through the sensuous and bodily movement and interaction with the architecture of room, furniture, tableware, and food.

Appearance and perception: Madeleines uses the architectural staging of the meal and the sensuous effect of surprise and astonishment in movements and bodily positions as active elements in their restaurant food servings. The quality and the exclusive taste of the food is no longer the top priority in fine restaurants. Instead the sequences of bodily and sensuous experiences related to the meal and the act of eating become the main focus. Though the carefully planned scenography of the meal both architectural and culinary Madeleines lure and tempt the senses with varying stimuli and mediation of space. Cleverly accompanied and performed as ordinary theatre plays through live performance, architectural settings and use of different narratives. Their main story and hidden intention becomes the objective of the body and its senses; making people aware of their own sensibility towards space and shape, as well as the magic and mystic the bodily relations can reveal through past memories. Just as seen with the eating of the Madeleine Cake of Marcel Proust (see page 298). This is communicated through a high focus on the bodily senses and simple architectural means as movement, touch, sound, scent, taste, sight and surprise just as argued for in chapter 4.



Fig. 5.14

The food

Much of the food served at Madeleines follows the new standards of small explosive bites of taste given with for instance the field of Molecular Gastronomy.
(www.hd.se, 27.12.2007)

>> *The act of eating together and the mutual sensuous meal experiences, transformed a necessary bodily function into something far more significant; a social event.* <<

>> *Using the bodily involvement and engagement with the architecture and room to create a spectacular setting around the food. As such some of the same aspects within architectural choreography are used to stage two completely different narratives, though, both evolving around the same intent of a surprising and sensuous dinner.* <<

Sub conclusion

As I have demonstrated each of the two epochal ages; *the Roman antiquity* and *our present society* have produced each of their own archetypal ways of staging the meal experience by means of architectural settings and spatial configurations in scale of rooms, furniture, tableware and food. In both the cases the act of eating together and the mutual sensuous meal experiences, transformed a necessary bodily function into something far more significant; *a social event*. The table and those bidden to gather around it and share its pleasures and experiences, were all vehicles for social aggregation and unity. Equally, however, the same table in the case of Villa Hadrian further showed by means of tableware, furniture and interior décor to encourage social distinction and separation of dinner guests into categories by placement. - Or even worse, by exclusion, as seen with the hierarchy in the seating formation dividing guests into different areas of social status and political power.

Whereas the architectural means of surprise and astonishment in Villa Hadrian mainly have proved to be concerned around the visual effects of water, richness in interior décor and framing the position of the emperor, the architectural means of Madeleines moves towards a far more active involvement of the body. Here diners are forced to move around different stage settings, eating and drinking closely together at the floor, along the dinner table, standing at the desk or seated in couches etc. Both cases architecturally adapt the use of embracing niches, built-in furniture and variety in compressed and open spaces. But whereas Villa Hadrian uses it to create specific views staging the landscape or the emperors religious and social power, Madeleines uses it to take the diner out of their ordinary meal situations. Hence, using the bodily involvement and engagement with the architecture and room to create a spectacular setting around the food. Some of the same aspects within architectural choreography are used to stage two completely different narratives, though, both evolving around the same intent of a surprising and sensuous dinner.

So what can be learned by the two cases; Villa Hadrian and Madeleines Madteater, for the future formulation of a design proposal for a specific architectural setting staging the promotion and development of Figgjo chinaware?

The aspects for admiration and the lesson to be learned by the two cases of respectively Villa Hadrian and Madeleines Madteater are in my opinion the two very different ways of architecturally staging the meal experience. Hence, using the performative and surprising elements of presenting the food through aesthetic considerations on form and appearance to create sensuous experience and form social bonds across strangers. As argued for by Pallasmaa in chapter 4; a place engages with the body, it is encountered, approached, moved through and related directly to our behaviour and being-in-the-world,

thus creating a sense of comfort and pleasure. Hence through careful considerations on architectural form and choreographed movements interacting with the space, furniture and tableware, shape in general develops a primordial sense of belonging. I think both Villa Hadrian and Madeleines are fine examples of this, and perhaps exactly the staging value of the architecture and the utilization of detailing in furniture and tableware appearance, together with the performative element of preparing the food, is what potentially can help develop the future promotion of Figgjo chinaware?

Whereas Villa Hadrian represents a static staging, through a semi-fixed interior putting a focus on the visual movements and the social status of the emperor, Madeleines features the moveable, flexible setting putting the movement and engagement of the entire body into focus to gather social relations across strangers. With the different room configurations, Madeleines makes the diners part of the performance, forcing them to move between spaces; sitting on mattresses on the floor, walking up and down different stages, sitting at chairs along tables and finally relaxing in couches among strangers enjoying their tea. Physically you are manoeuvred through space, all the time shifting position and visual focus, sometimes even losing sense of direction as the space is dissolved into darkness by the lacking interior lighting. Every interior aspect and bodily movement is further emphasised by the strong and rich use of varying textures and comprehensions of space, thus forcing a greater tactile interior focus than perhaps ordinary experienced at restaurants. Villa Hadrian on the other hand ascribes the diners specific places according to societal status and importance among co-diners, instead focussing on the spectacular scenery of the surrounding landscape, the scenic water cascades, the play of light and the magnificent architecture and interior décor. Perhaps lacking the direct bodily movement around the architecture, but instead putting a grand focus on the optical and visual perception of space.

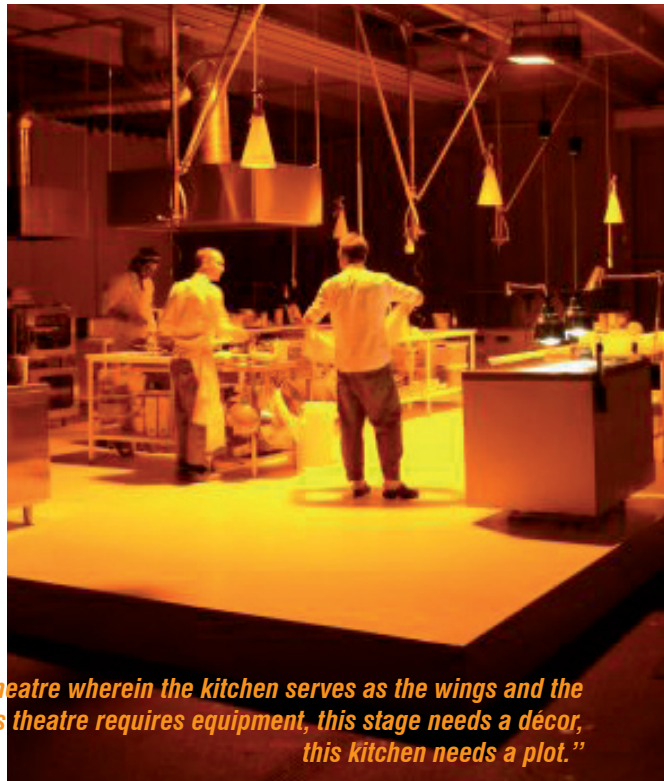
In both cases, however, every architectural detail in scale of landscape, room, furniture and tableware has a relevance to the food served, and together with the live performances communicate an important story around the food. Food is as such put in an artistic ritual and a symbolic perspective both in the cases of Villa Hadrian and Madeleines. And the dining room becomes a theatre where the table works as the stage, and the plates and foods are as much the performing actors as the chefs and slaves brining the food. The sense of taste is thereby in both cases materialised through a rich detailing in tableware and surrounding table settings – all serving the one focus of enhancing the performative meal experience. To understand the full significance of the architecture and the embracing room it is my conviction that we need to understand the detail of the food and the dinner; read the story down to the last line on the plate served at the table, and comprehend the appearance of the plate and the food as important parts of a live performance or narrative, as argued for by the preceding chapters.

>> Through careful considerations on architectural form and choreographed movements interacting with the space, furniture and tableware, shape in general develops a primordial sense of belonging. <<

>> The sense of taste is thereby in both cases materialized through a rich detailing in tableware and surrounding table settings – all serving the one focus of enhancing the performative meal experience. <<

Fig. 5.15
Kitchen at Madeleines
(www.madeleines.dk)

The preparation and serving of food on plates and grand dishes as it was initiated by the chefs during the Roman antique period, is in our contemporary time with Madeleines as such taken to an entire new level. And so is also the comprehension of tableware and the act of eating. With Madeleines the food is served and eaten as often directly of the hand of the servants or from a cannula or pipette, as of the regular plate with a knife and fork. The ordinary tableware; the plate and cutlery, or the ordinary settings of a table and chair, no longer necessarily constitute the ordinary and familiar frames around the dish. The role of the architectural space; the room, the furniture and the tableware have thereby to a great extend been altered, and the food experience entered new levels of architectural staging.



“The dining room is a theatre wherein the kitchen serves as the wings and the table as the stage. This theatre requires equipment, this stage needs a décor, this kitchen needs a plot.”

*By Chatillon-Plesis 1984
(Kirshenblatt-Gimblett, 2007:75)*

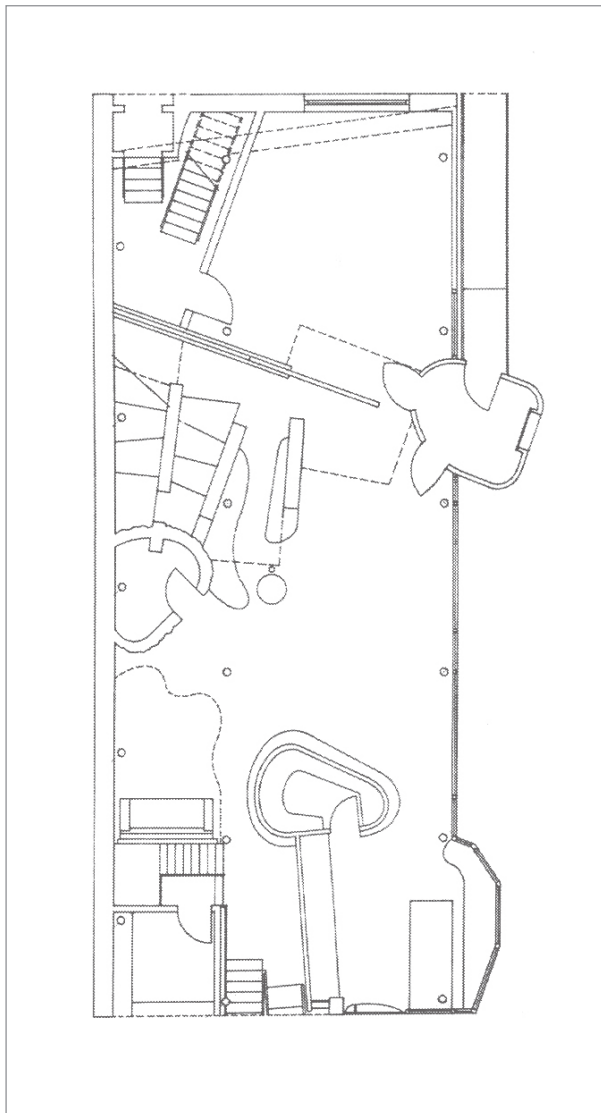


Fig. 6.0

"The trace transformed into the plan of our house. Clutter filling the plan(e). Domestic difficulties interrupting the order of the grid." By Sarah Wigglesworth Architects, London. (Horwitz & Singley, 2004:13)

Chapter 6

THE LAY OF THE PLAN

MILLENNIUM TRICLINIUM . DESIGN STRATEGY

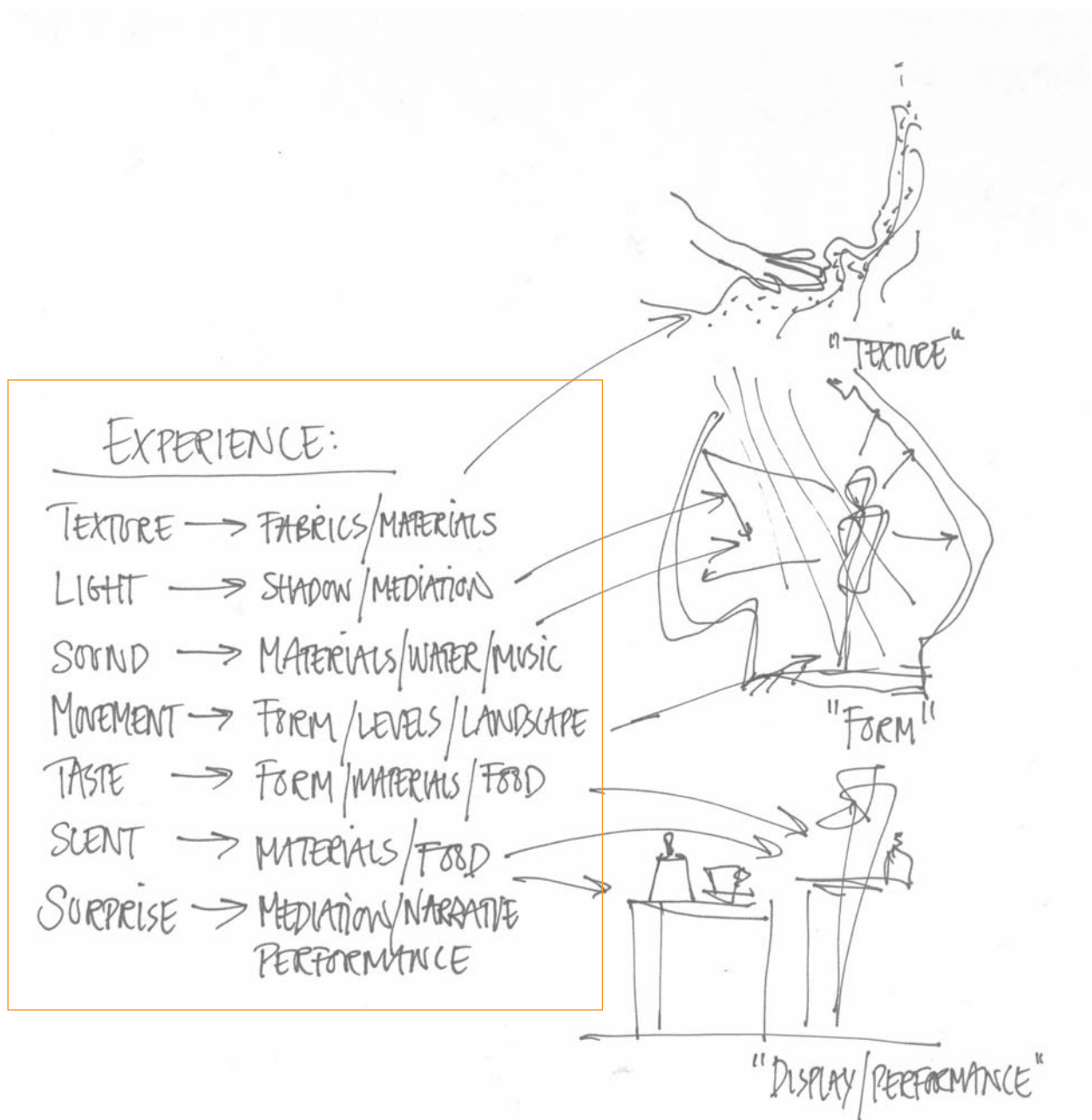
With the previous chapters I engaged in the elaborate study on the role of architecture in the public meal experience. This investigation was strongly motivated by a personal interest in the interrelated fields of architecture and gastronomy. But also the opportunity of developing a specific design proposal for an architectural setting for the company Figgjo. The intention behind the design proposal was partly the function of promoting Figgjo's newest chinaware at fair trade exhibitions and food events, but also the desire of stating considerations on the relationship of architecture, room, tableware and food as means to enter new creative cross-disciplinary collaborations and develop future chinaware.

My interest in the cross-disciplinary field of architecture and gastronomy was on the background of the above considerations further motivated by the perspective on architecture as phenomena, formulated with among others the Danish art historian; *Lise Bek*. With the notion of architecture as phenomena the spatial settings frame our experiences and being-in-the-world, and also our meal experiences and perception of food. Through sensations and interpretations of architectural form, whether it is in the grand scale of city structures and buildings or in the minor scale of furniture or tableware, the architecture as spatial form encompasses a significance of how we as individuals perceive, comprehends and places ourselves in the world. Architecture and gastronomy as two opposing phenomena touching us, emotional and sensuous, becomes essential in the understanding of our being-in-the-world as two premises of surviving or plainly living.

Taking my point of departure in these considerations on the subject of architecture and gastronomy, it has with the theoretical part of present thesis been my main goal to investigate how architecture as staging impacts on the experience of food. - This, on the background of the urge to develop a set of design parameters or a design strategy for a final design proposal possibly enhancing the promotion and development of new Figgjo chinaware by means of an architectural setting.

>> *The study revealed an interesting tendency showing that past times grand banquets utilized the performative element of theatre and staging to create multi-sensuous experiences engaging the whole body and all its sense modalities.* <<

The theoretical investigation was initiated by a historical study examining the architectural settings around grand European banquets held during the Antique Roman period and forth to contemporary times intriguing restaurants, like the restaurant *Georges* in Paris and *Madeleines Madteater* in Copenhagen. This study revealed an interesting tendency showing that past times grand banquets utilized the performative element of theatre and staging to create multi-sensuous experiences engaging the whole body and all its sense modalities. The element of eating were as such an extended experience depending as much on the visual, audio, tactile, and kinetic experience as the gustatory and olfactory stimuli usually related to eating. *Taste*, became strongly related to as well the visual as the tactile comprehension of shape. This study was further extended with a short outline of some of the



best restaurants, from an architectural point of view, developed since the dawn of public restaurants as we know them today. Here I chose to focus on the architectural means of staging the setting around the meal, and investigate which conceptual parameters were behind the development of public eating facilities. With the five restaurant examples several design parameters were intuitively discovered guiding the architectural expressions. Those were among others; means of using space or built-in furniture to create minor intimate niches, allowing for privacy within the greater room. – Rich detailing in choice of materials, carrying strongly about the tactility and surface treatment, for instance through the use of contrasting materials like stone, wood, and fabrics. – The play of light, using the patterns occurring in the materials and the staging effect of the light and shadow to create diffuse glimpses of space. – The specific alignment of furniture and overall room configuration to create specific movements and views as well as indirectly allow for social gatherings.

The initiate studies on respectively historical banquets and restaurant interior, however, also initiated the speculation on *how* architectural space directly relates to the act of eating and the sense of taste? Which led me to the investigation on the aspects of the meal experience with theories developed by Korsmeyer and Meiselman. Here the understanding of the role of the contextual settings, hence the architecture, was not coherent and a further examination on the relations of architecture and meal experiences were needed. I did this by engaging in the two theoretical models; *the Food Choice Process Model* and *the Food Expectations Model* developed by Furst et al. (1996) and Delizia & MacFie (1996), both seeking to describe the affects of product brand/ physical appearance as determinants of consumer choices and food satisfaction. With the two food scientific models I was given an insight in the more positivist research field's comprehension of the meal experience and the role of architecture/ design in relation hereto. However, whereas both the models proved connections between the physical appearance of the product and the consumer choice/ satisfaction, none of the models in my opinion provided sufficient knowledge as to *why* and *how* this relationship prevailed?

I therefore chose to engage in a more architectural theoretical study, using the phenomenological theories of Pallasmaa, Merleau-Ponty and Hall, as well as the semiotic theories of Eco and Barthes to engage further in the understanding of architecture's role in the meal experience. This through the focus on the perception of form and how we as beings and sensory bodies experience the world around us. Hence, how we comprehend space, tableware and food not just through physical stimuli, but through a mental involvement with shape and *contextual* values added to objects and specific meal situations. When something goes beneath the skin as space and food proved to do with the luring of senses as touch, taste and smell, it strengthens our sense of self and being-in-the-world. And the approaches

Fig. 6.1

The Multi-sensuous Experience

With the historical study and restaurant examples means of creating the multi-sensuous experience were: creating minor intimate niches, rich material detailing creating tactility, play of light and shadow to create diffuse glimpses of space, and the specific alignment of furniture and overall room configuration to create specific movements and views. This together with elements of surprise, performance and food as display.

of respectively phenomenology and semiology offered a level of deeper understanding towards the role of architecture on the meal experience, by the relation of food and architecture to our existential backgrounds.

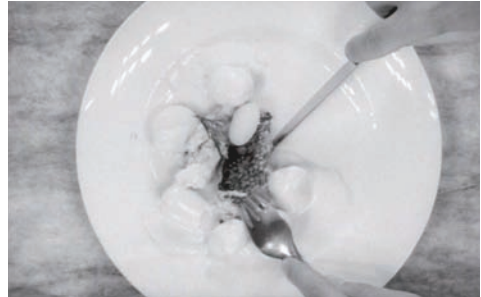
With the theoretical chapter on phenomenology and semiotics this was argued for with the theory of Pallasmaa and the viewpoint that the sense of self strengthened by art and architecture allows us to engage fully in the mental dimensions of dream, imagination and desire. And whereas food in the chapter on the meal experience was a latent means of expressing hidden dreams and desires, architecture relates, mediates, and projects those meanings. This intentionally is an intrinsic and in itself unconscious act, in which memory plays an important role. The ultimate meaning of any building or architectural setting is therefore beyond architecture. It directs our consciousness back to the world and towards our sense of self and being, as further emphasised with the theories of both Merleau-Ponty and Hall. Significant architecture makes us experience ourselves as complete embodied and spiritual beings. (Pallasmaa 1996:11)

>> *The sense of self is strengthened by art and architecture allowing us to engage fully in the mental dimensions of dream, imagination and desire. And whereas food in the chapter on the meal experience was a latent means of expressing hidden dreams and desires, architecture as such relates, mediates, and projects those meanings.* <<

The polemical essay; *Green Rose by KPM*, was initially based on the personal experiences, views and speculations on the significance of architecture and the importance of our tactile, gustatory and olfactory senses for our experience and understanding of the embracing world. Hence, the relationship of the room, furniture, tableware and food. Through the understanding of phenomenology and semiology I touched upon the sense modalities and our bodily relation to- and comprehension of the world. Through the body and our senses we experience and perceive our surrounding society. Sensing and interacting with physical shape touches something deeper, more profound in us, and brings us back in time. It creates comfort, tie social relations and provides a feeling of being-in-the-world. In the experience of architecture a peculiar exchange takes place. I lend my emotions and associations to the space, and the space lends me its aura or spirit, which entice and emancipates my perception and thoughts. An architectural work is not just experienced as a series of isolated retinal pictures, but in its fully integrated material, embodied and spiritual essence. With this notion, space and form are given a *narrative* pointing towards the importance of architecture as staging for meal experiences. Drama, sense of relationship and utilitarian needs; *architecture concerns both physical and mental well-being*. And all this can be obtained through the careful orchestration of architecture and the staging of the eating environment as well as the food, through considerations on scales of landscape, building, room, furniture, and tableware.

Scale-linking or working across scales of architecture as with the involvement of both furniture, tableware and food, suggest a standing back and using a wider lens to detect exactly how the larger acts on the small. How architecture for instance acts on food or tableware?

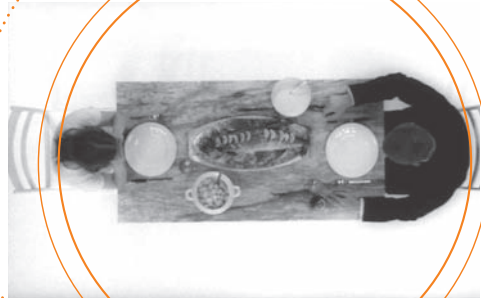
PLATE



TABLE



CONTEXT



DINER



Fig. 6.2

The Meal Experience

With the body and our senses we experience and perceive our surrounding society. Sensing and interacting with physical shapes as food, plate, table and room touches something deeper, more profound in us, and brings us back in time.

It creates comfort, tie social relations and provides a feeling of being-in-the-world. In the experience of architecture a peculiar exchange as such takes place and the meal experience is given a narrative pointing towards the importance of the architecture and contextual settings. (Pictures from Leth, 1967)

Where we focus on one specific scale, we in my opinion miss the ability to see the interrelation of food and architecture as proved with present theoretical study. Looking at the form of a plate in terms of architectural typology or looking at the details of architectural settings in terms of furniture not only gathers different scales but also gathers diverse perspectives which as with the design of Figgjo chinaware contributes to new understandings of form in general.

Using relationships

Scale and appearance are revealed by contrasting relationships and change of state. We know and recognize small because of large, soft because of hard, rough because of smooth, straight because of curved, single because of multiple, and inside because of outside. Comparison between those contrasts lead as such to a mutual evaluation and distinct reading of form. (Benzel 1996) When we look towards the functions of the Millennium Triclinium as respectively a showroom- and food event facility, the setting must strongly relate to this as exactly the shift in scale becomes important for the architectural setting's ability to promote the chinaware.

Furthermore branding and promotion of products have always been about establishing an emotional tie between the brand, product and consumer. (Lindstrom 2005:103) With chapter 3, *the meal experience*, it was seen how Furst et. al. (1996) and Delizia & MacFie (1996) both assign great significance to the emotional information being gathered by our sense, in relation to actually "comprehending" the products. Much of the importance of perceiving food and tableware is cognitive. And meanings of many sorts become part of the eating experience and the promotion of for instance Figgjo chinaware. -Meanings emerging from the larger social context of eating and sometimes embedded in the very specific tastes of what we eat, as argued for in the previous chapters. Taste is thereby a little different from the other senses in its ability to possess meaning, and to achieve cognitive significance. But also in its ability to being triggered by the stimuli of touch, vision, sound and smell.

And exactly this, the ability to trigger the sense of taste by means of the other sense modalities is perhaps what can be utilized in the development for a proposal for a Millennium Triclinium for Figgjo?

Staging the Figgjo meal experience

With the case study on respectively Villa Hadrian and Madeleine's Madeteater I have been able to trace, from existing examples and specific meal situations past and present ideas of cohesive spatial design. As I have moved within and through the spaces of Madeleine's and Villa Hadrian, both theoretically and in some cases practically, I have sought to peel away the layers of accumulated use over many centuries, with the goal of identifying enduring spatial and architectural means. My

>> Looking at the form of a plate in terms of architectural typology or looking at the details of architectural settings in terms of furniture not only gathers different scales but also gathers diverse perspectives which contributes to new understandings of form in general. <<

>> Taste is as such a little different from the other senses in its ability to possess meaning, and to achieve cognitive significance. But also in its ability to being triggered by the stimuli of touch, vision, sound and smell. <<

>> *I learned that like a narrative,
eating is an extended event. It
takes time to accomplish and
it is enjoyed and conducted
sequentially.* <<

motivation has been to see the ancients interrelation of architecture and food in a new light; and thereby be able to critically assess the various ways in which the spectacle of social order constantly renewing and asserting itself shapes an entire environment, connection cultural use to spatial form, inside to outside, decoration to space making, food and tableware to room, and smallest part to largest whole of architecture. Hence, the two cases of Villa Hadrian and Madeleine's Madteater are theoretical points of departure, not goals of arrival in my quest for a design strategy applicable to a specific design proposal for a Millennium Triclinium for the promotion of Figgjo chinaware.

From the two cases and the initiate historical study I learned that like a narrative, eating is an extended event. It takes time to accomplish and it is enjoyed and conducted sequentially. As with the context, the intention and the specific purpose of the meal become important aspects determining the entire narrative of the spatial settings. With the cases of Villa Hadrian and Madeleine's the narrative was probably the higher intention of communicating social affiliations or creating relations across strangers. This was achieved in both cases by means of joining *food, architecture* and *performance*, thus creating a multi-sensuous experience engaging with the entire body both physically and mentally. In both cases further means of creating "the good experience" were obtained through the means of surprise and astonishment; creating the multi-sensuous experience by altering the perception of food and architecture via performance.

In Madeleine's the settings around eating was altered into a series of different stages/eating environments forcing the diners to physically move around the entire space, and in Villa Hadrian the food and interior décor was altered into spectacular objects and settings encompassing rich flavours and overwhelming choices of materials. Simultaneously as live performances involving both food and architecture ties it all together in the multi-sensuous meal experience.

With the design proposal for the Millennium Triclinium my strategy is therefore in line with the two cases to create unique Figgjo meal experiences by taking the Figgjo chinaware out of its normal settings, deprive it of its ordinary frame of the dinner table and the food. And instead use the joint aspects of; *food, architecture* and *performance*, to create a multi-sensuous experience staging the promoting and developing of Figgjo chinaware.

Throughout the theoretical study of architecture's role in the meal experience I have been focussing on the relationship of food, plate and room, through the notion of architecture as staging phenomena, and this focus has fostered the identification of a number of different design aspects potentially providing this multi-sensuous experience desired. Those aspects are:

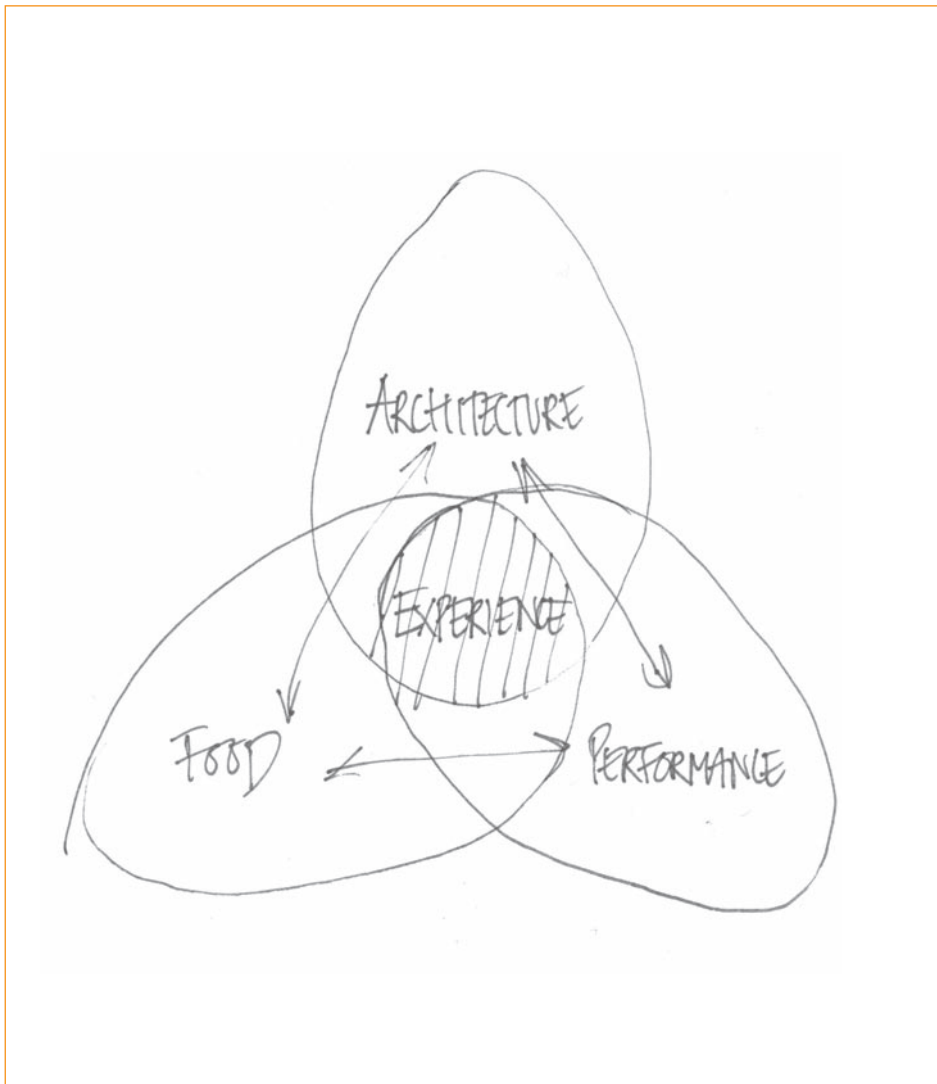


Fig. 6.3

Food + Architecture + Performance = Experience

With the theoretical part some general characteristics were formulated describing the coherence between the cases of Villa Hadrian and Madeleine's Madteater, emphasising the importance of architecture, food, and performance relative to the good meal experience.

- . *Context (scenarios, users, purpose)*
- . *Narrative (intention, course, surprise)*
- . *Scale (landscape, building, room, furniture, tableware, food)*
- . *Detail (form, technique, significance)*
- . *Experience (movement, touch, scent, taste, sound, sight, surprise)*

The identification of these aspects should be seen as part of the design strategy developed towards how to approach the architectural staging of meal experiences *in general*. When then applied to the actual case of the design proposal for the Millennium Triclinium for Figgjo, the design strategy and its five aspects foster a proposal on specific *design parameters* to be implemented in the final design proposal.

Design parameters

With both the introductory historical study and the restaurant examples the importance of the multi-sensuous experience perceived through the means of *movement, touch, scent, taste, sound, sight* and *surprise* were outlined. Those means were further emphasised with the theoretical study on phenomenology and the theories of Hall, Merleau-Ponty and Pallasmaa. Here they all strongly accentuated the importance of architecture's ability to directly engage with the body both physically as mentally, hence, further stating that through careful considerations on physical engagement one automatically obtains the mental connection. As part of this especially the sensory realms of vision, scent and touch were emphasised as means to achieve also taste-related perceptions. In the section of "*the spatial qualities of taste*" and the arguments of Pallasmaa, the sense of taste could be related to the intriguing surface treatment of certain materials and the urge to engage with textures as for instance soft fabric or smooth stone. Simultaneously means to engage physically and mentally with the spatial settings were the primordial comprehension of the forest, or the grotto. Emphasising the importance of the bodily movement; the walking along paths, up and down different levels, creating diffuse glimpses and a strong sense of light and shadow.

With the specific design proposal for the Millennium Triclinium my proposal is therefore on the background of the design strategy; *architecture as staging* and the five aspects of; *context, narrative, scale, detail, and experience*, to treat the Millennium Triclinium as a three-dimensional space engaging the entire body by means of exactly fusing food, architecture and performance and achieving the multi-sensuous experience. To achieve this, the design proposal takes its point of departure in the following five design *parameters*;

*Path,
Landscape,
Grotto,
Surface,
Display*



"PATH"

*Bodily involvement
Articulation of movements
Intention and specific course
Elements of surprise*

"LANDSCAPE"

*Kinetic perception and bodily movement
Differentiating levels incorporating scale of landscape, room,
furniture, tableware and food*

"GROTTO"

*Embracing room articulating touch, sound and vision
Intimate/ private space
Integrated interior fusing different scales*

"SURFACE"

*Engaging with the skin
"Sense of taste" via touch, vision and scent
Contrasting chinaware via surface treatment and material details*

"DISPLAY"

*Interior vue creating specific narrative
Framing chinaware
Staging performance
Specific intention of promotion
Course of surprise and reflection*

PATH . Serving as an intentional guiding element the path both leads the spectator in specific directions towards studying the Figgjo chinaware, but simultaneously like a walk in the forest invite for movement and involvement of the body. This by means of perhaps deliberately forcing the spectator to walk around the setting without necessarily following the same paths as the visual lines of focus.

LANDSCAPE . With the higher intention of involving the kinetic sense modalities of the body, the landscape deliberately serves as an encouraging element for horizontal movements and different levels of height. - Perhaps inviting for eating half reclined on the floor or on a couch like in the Roman times? Furthermore the parameter of the landscape is a potentially fusion with the parameter of “display”, as means to exhibit the Figgjo chinaware. Thus deliberately removing the china of its ordinary position at the dinner table, instead like in past times becoming the interior decor and wall settings.

GROTTO . The grotto as an architectural element served the purpose of creating intimate niche and private space within the overall public space as the fair trade exhibition space. The grotto’s ability to shelter and embrace both the body and the china become important for the narrative of the final design proposal. Furthermore the configuration of the grotto potentially together with the parameter of “landscape” and “path” forms an integrated interior where the display of the chinaware is experienced in new manners relative to the ordinary “dinner table configuration”.

SURFACE . With the parameter of surface the importance of tactility and the sense of touch as means of triggering the sense of taste are obtained. Simultaneously the strong primordial relations to the skin feel and the physical engagement with the structure through its materials are emphasised by speculating in contrasting and intriguing materials in the final design proposal. An important parameter in relation to this is the one material given pre-hand; the glazed, hard, white surface of the china.

DISPLAY . The parameter of display directly relates to the functional aspect of the exhibition of the Figgjo chinaware during both trade fair exhibitions and food events. But the aspect of display further relates to the display of food, and the performative elements of surprise, where for instance the way the china is experienced during respectively showroom exhibitions and food events are altered relative to the ordinary “dinner table” situation. This potentially binds the five aspects together and utilizes the joining of food, architecture and performance.

With the initiate outline of the design strategy and these above five design parameters in mind, it is then time to move on to the design part of present project, and finally engage in the actual design proposal for the Millennium Triclinium for Figgjo.

Fig. 6.4

Architecture as staging
With the following five aspects the initiate considerations regarding the development of the specific design proposal for an architectural setting; the Millennium Triclinium, for Figgjo has been made.

DESIGN PART

Designing the Millennium Triclinium for Figgjo

INTRODUCTION . STAGING FIGGJO MEAL EXPERIENCES

With the choice of the long dissertation programme; *Millennium Triclinium, staging the Figgjo meal experience*, the possibility to engage in the specific subjects of architecture and food, both theoretically and practically was offered. Present part of the report constitutes the design part which in continuation of the previous theoretical part seeks to apply the formulated design strategy; *architecture as staging*, of chapter 6 (see page 159) into a concrete design proposal for an architectural setting combining showroom facility and eventful eating environment as a means for future promotion of tableware for the Norwegian china company Figgjo.

With the theoretical part I allowed myself to challenge the norm within architectural studies by engaging in the relationship between food and architecture. I chose to investigate the role of architecture in the public meal experience and apply both the theoretical fields of Food Science and Consumer Science to the architectural theoretical fields of Phenomenology and Semiotics even though they could be argued to be strict oppositional research fields. This application of oppositional fields; the strict positivist and empirically rooted knowledge of consumer science and food evaluation together with the hermeneutic interpretation of perception of space and form, were chosen as deliberate means to understand the impact of architecture and perception of space relative to the food experience from the objective of the diner. Therefore a three step study was initiated examining perception of architecture from a consumer scientific, phenomenological and semiotic point of view, seeking to formulate which architectural means defines the perception of the meal.

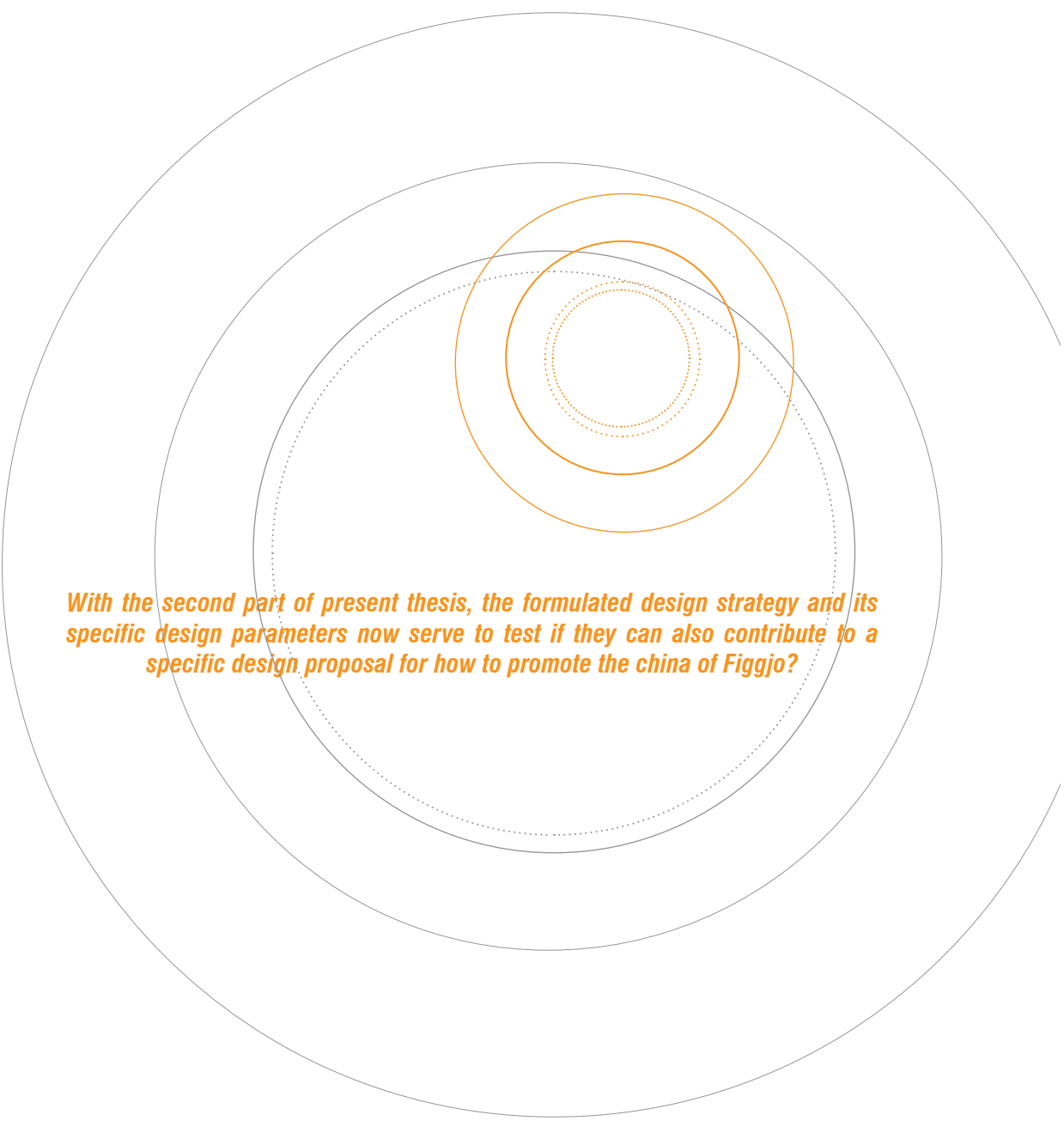
The fusion of these oppositional fields led to an understanding of architecture as staging embracing our lives and being-in-the-world. Hence, also embracing the meal situation and thereby creating specific consumer expectations towards the forthcoming food experiences by perception of space as bodily related form and as connotative sign (See theoretical part, chapter 4). This study of architecture as phenomena embracing our meals furthermore led to an important understanding of architecture operating in scales of landscape, room, furniture and tableware, further clarifying that the sensuous and connotative perception of space is as much dependent on the appearance and arrangement of plates, cutlery, and furniture detailing, as the overall configuration of the room or spatial architecture.

The result of the theoretical study points towards a comprehension of architecture as totality – or *gesamtkunstwerk* incorporating architectural detailing in all scales and considerations on design as a communicator on cultural affiliation.

On the basis of the understanding of architecture as phenomena and the staging of our being-in-the-world the theoretical part of present thesis represents an occupation with the understanding

>> *With the theoretical part, I allowed myself to challenge the norm within architectural studies ...engaging in the relationship of food and architecture.* <<

>> *This led to an understanding of architecture as staging embracing our lives and being-in-the-world. Hence also embracing the meal situation...* <<



With the second part of present thesis, the formulated design strategy and its specific design parameters now serve to test if they can also contribute to a specific design proposal for how to promote the china of Figgjo?

of architecture's role in the meal experience, and more precisely examining how architectural staging of meal situations potentially enhances the food experience through considerations of architectural detailing and connotative communication in scales of room, furniture, and tableware. Finally, based on the notion of architecture as staging of our being-in the world, a design strategy emphasising the sensuous and bodily experience of space and food was formulated; concluding the aesthetic value of bodily and mental relation to form and the experience of food through a multi-sensuous experience of; *movement, texture, sound, light, scent, taste, and surprise.*

With the second part of present thesis, the formulated design strategy and its specific design parameters transformed into the five aspects of; *Path, Landscape, Grotto, Surface and Display* now serve to test if they can also contribute to a specific design proposal for how to promote the china of Figgjo?

DESIGN BRIEF; PURPOSE AND GOAL

Figgjo is as previously mentioned in the introduction a china manufacturing company dating back to 1941 (see also Appendix A1 page 290). At that time Figgjo mainly manufactured china and tableware intended for private household use, whereas since 1996 Figgjo's production has primarily approached the professional culinary businesses as restaurants, institutions and workplaces. (Rosenberg 2001:11) With the reorganisation from private to professional markets Figgjo's production of china resulted in altered strategies towards brand, structure, production, users and design. Today Figgjo tableware can primarily be purchased via the Figgjo Internet store or by special selected retail distributors. (Figgjo, January 2008) Hence, Figgjo's chinaware is not available in public stores as china for private households, and Figgjo do not normally have direct contact or a close relationship to customers or users of their products. In relation to this deliberate focus on the professional market Figgjo today primarily promotes their china by attending trade fairs or participating in culinary exhibitions for professional chefs and tableware distributors. Figgjo's strategy when attending these fairs and exhibitions are primarily showing selected products by use of brochures and exhibition shelves/stands/ tables, focussing on the diversities and skills of Figgjo products through few but well-illustrating examples, rather than brining all of the product series. (Figgjo, January 2008) However, Figgjo has a future wish to elaborate on the promotion of their tableware and make a clear stand relative to the competing china companies by involving the customers, distributors, and chefs more in the initiate experience, presentation, experimental use, and development of specific china products. (Figgjo, January 2008)

>> Figgjo has a wish to elaborate on the promotion of their tableware relative to competing china companies by involving customers, distributors, and chefs more in the initiate experience, presentation, and experimental use of tableware to develop future Figgjo products. <<

An initiate example on considerations regarding consumer involvement in the Figgjo china promotion is the recent introduction of the new

Figgjo series; *Figgjo Front Dining*, where Figgjo during December 2007 in collaboration with some skilled professional chefs and Gastronomisk Institut in Stavanger arranged a grand food event, serving fine cuisine on their newest tableware to all the workers of the Figgjo factory. The higher purpose of this initiative was beside the promotion of the china, to actively examine the consumer experience of the china from the perspective of both chefs and diners up-front. – And using this close contact, first-hand experience and culinary experimentation as an important input and feedback for understanding the potential use and further development of Figgjo china. (Figgjo, January 2008)

The second part of this thesis takes its point of departure in Figgjo's request for consumer involvement and culinary experimental testing of china in the future promotion of Figgjo tableware, and concerns in continuation of the theoretical part the development of a specific design proposal for an architectural setting combining showroom facility and eventful eating environment; a *Millennium Triclinium*.

The goal of the design part is in continuation of the above request by Figgjo, to be able to form a distinctly expressive architectural setting, giving attention to the future promotion of Figgjo chinaware, by developing a spatial environment staging the surroundings of showroom facilities and experimental food event. And where the final intention is to be able to state and design an architectural setting which is part experience, part ritual, and part lunch.

My intention with the design proposal for a Millennium Triclinium is therefore in accordance with the Figgjo request and the design strategy formulated in the theoretical part, to challenge the ordinary perception of china and tableware in relation to room and food. And this, through the notion on architecture as staging and the importance of addressing all of the bodily senses as well as perceiving shape as connotative sign. Hence, working with Figgjo as a specific case, it is now pursued to implement the theoretical study and the design strategy; *architecture as staging*, presented in chapter 6 (see page 156) into an actual design process and a specific design proposal for architectonic form staging the chinaware and related meal experiences, thereby contributing to the future promotion and further development of Figgjo chinaware. This means that the final design proposal preferably encompasses a basis architectural setting or interior design framing showroom facilities, seating, dining, and minor cooking or preparation facilities, and that the design proposal is adapted in furniture detailing, considering the application and sensuous importance of tableware and china in the meal and exhibition situation.

APPROACH + READERS GUIDE

Following the theoretical study of architecture as staging of the meal experience, present part seeks an answer to the role of architecture in the food experience through the proposal of a specific design for an architectural setting combining showroom facility and eating environment in the proposal for a *Millennium Triclinium*.

The design of a Millennium Triclinium is, however, preconditioned by a number of aspects, such as design premises, mobility or transportation, assembly, economy, weight and size according to the fulfilment of functional needs by Figgjo and the promotion of their china. With the challenge of having Figgjo as sparring partner and figurative client, considerations regarding functional concept, construction, interior details, materials, and light are furthermore important considerations to engage in, and are subjects which potentially could be motivated further through a profound understanding of the contextual and narrative relations regarding the promotion of Figgjo chinaware. Therefore following chapter initiates the design phase by an elaborate introduction to the development of the functional concept as well as an analysis of the preconditions for a design proposal for a Millennium Triclinium. This approach has been chosen as means to further clarify needs and demands for the actual design of the Millennium Triclinium and part of this analysis investigates and potentially uses Figgjo's approach towards china design in correlation with the theoretical knowledge gained in the first part of present thesis.

The intention behind the development of the design proposal is furthermore that the architectural concept will be accomplished through the connection of contemporary technical knowledge with experimental dimensions evident in architectural detailing in general. And finally analogue and digital sketching methods are used in the actual design phase to develop the specific design proposal, and as part of this illustrate the spatial qualities and intentions of shape, texture, and light.

In the theoretical part the analytic model formulated by Lise Bek was deliberately used to examine the spatial qualities and architectural significance in terms of bodily experience of respectively Villa Hadrian and Madeleines Madteater (see page 145-147). With the engagement in the contextual relations of Figgjo and especially of the exhibition of their chinaware, the task of the analysis have slightly changed, now being more concerned about the coherence between spatial qualities desired, functional aspects required and technical possibilities endeavoured as means to develop a sensuous and significant piece of architecture promoting the china of Figgjo. The purpose suggests for another approach than necessarily the model formulated by Bek,

and I have therefore chosen to focus more on the comprehension and use of the chinaware, as well as the experiences invited for when utilizing for instance plates, cups or dishes, rather than examining the technical or aesthetic qualities of each scenario involving promotion of Figgjo products. Therefore the analysis takes its point of departure in the elaborate understanding of Figgjo and especially the two different scenarios; *the showroom* and *the food event*, delineating the functions, users, spatial experiences, and technical demands for a Millennium Triclinium for Figgjo - finally leading to the formulation of a concrete room programme and spatial concept.

In continuation of the room programme and the spatial concept follows an elaborate presentation of the different aspects of the design process, endeavouring the steps from spatial concept to actual design proposal. These steps are elaborated through four overall phases being; *design phase*, *detailed design phase*, *presentation of the design proposal*, and *design process*.

The design phase endeavours the overall development of functional as well as spatial concept, featuring detailed descriptions and considerations on the developed form, chosen materials, and desired spatial experiences. The detailed design phase, then in continuation of the design phase elaborates on the specific principles of construction, assembly, transportation, and lighting with the intention of finally presenting a proposal at a detailing level ready for actual production. The presentation phase and design process then, as the names indicate, presents respectively the final design proposal, seeking to illustrate spatial and functional qualities through detailed drawing material and model photos, and the process of the different design steps endeavoured during the development of the final proposal.

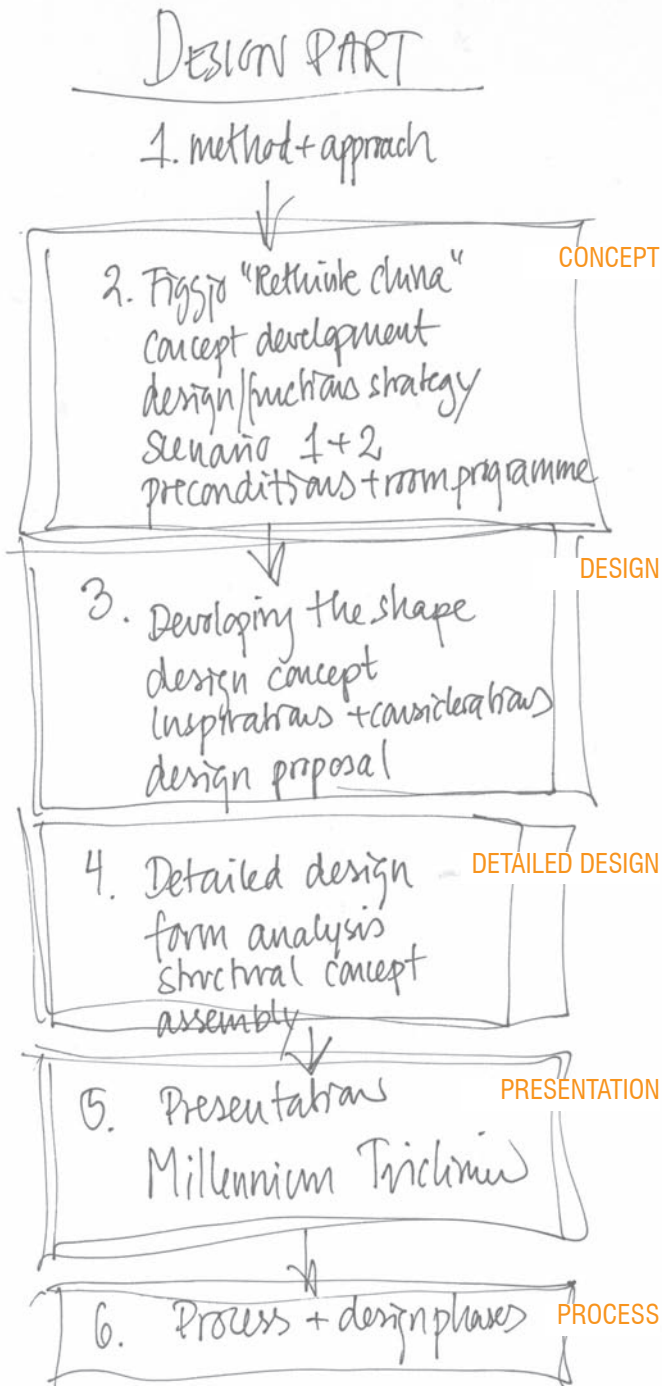


Fig. 7.0

Sketch outlining the primary phases of the design part.

Fig. 7.1

*The three cups of the new
"Figgjo Front Dining" series.
(Figgjo Front Dining brochure,
2007)*



Chapter 7

CONCEPT . "RETHINK CHINA"

PROMOTING FIGGJO CHINA . STRATEGY

To arrive at a satisfying and attractive design proposal for a Millennium Triclinium for Figgjo it is not enough conforming the design strategy developed throughout the theoretical part into an architectural setting. I must seek to fulfil the desires and needs of Figgjo relative to specific uses and to the promotion of their china. Present chapter therefore on the background of the introduction of Figgjo's profile, products, and design strategy conducted in the initiate phase of the project (see Appendix A1, page 290) seeks to outline functional needs and spatial demands for a future design proposal for a Millennium Triclinium. As part of this an elaborate understanding of the functions and users in the two primary scenarios of the showroom and the eating environment at food events are examined as means to develop further parameters for an architectural setting promoting the china of Figgjo.

Functional concept

The professional culinary field is as argued for in the introduction of the theoretical part constantly moving toward new and innovative solutions seeking always to enhance and improve the food experience. (Figgjo, January 2008) This is especially seen within the national culinary teams of Scandinavia; *Denmark, Norway, Sweden and Iceland* or the trendy restaurants as with the case of *Madeleines Madteater* where standards and premises of making and serving food rapidly changes. With Madeleines aiming for new ways to present the food not only makes the food appear new, but also invites for new dishes and new tableware. The quality behind many of the Figgjo products is in my point of view as such the ability to constantly be innovative and challenge ordinary perception and use of china, by comprehending china as architectonic form and first of all knowing the classical archetypes within tableware. Therefore working with the understanding of future trends becomes vital for Figgjo to keep up with the demands of the chefs and professional china market. As well as the close collaboration with professional and skilled chefs as means to understand their future needs within china, as well as working with food presentations possibly provides valuable inputs for means to develop new products for Figgjo.

As mentioned in the previous section on design purpose (see page 164), Figgjo intentionally aims at the international and professional culinary market when promoting their china. Figgjo's design strategy inviting for innovation, creativity, and new perspectives on the use of china could, however, be claimed not to fulfil or properly communicate these creative ideas in their present standardized methods of promoting the china. Figgjo's way of promoting the tableware, in my point of view, often tend to mimic displays of tableware on shelves and tables like in ordinary household stores or trade fairs, without favouring the comprehension of tableware as scale-less architectonic form

*>> Figgjo's way of promoting their china, in my point of view, often tend to mimic displays of tableware on shelves and tables like in ordinary household stores or trade fairs, without favouring the comprehension of tableware as scale-less architectonic form inviting for sensuous exploration.
<<*

inviting for sensuous exploration, as communicated with the Figgjo design strategy (see Appendix A1, page 290). An approach towards a promotion strategy incorporating the features of both exploration and creativity towards the comprehension and use of Figgjo tableware is in my opinion needed when engaging in the design proposal for an architectural setting; a Millennium Triclinium, staging the future promotion of Figgjo china.

Concept development and strategy

With the theoretical part I endeavoured two specific cases respectively; *Villa Hadrian* and *Madeleines Madteater*, which despite their great difference in time and users both represent reflections on meal situations or food events using architectural spatial settings in scales of room, furniture and tableware to enhance the performative value and narrative experience of the food eaten. The purpose of engaging in the two cases of Villa Hadrian and Madeleines were to understand the role of the architecture in the meal experience. Understanding the impact and sensory quality of the food experienced through the physical and connotative perception of architectural design. The goal of the theoretical part was as such to formulate a theoretical basis for understanding how architecture possibly can be used to stage meal experiences. - And using this background in present design part to define new ways of also promoting and experiencing china through architectural form and the sense of food.

>> *The use of china, tableware and sculpturous food has historically played a great role in the staging of meals, and as interior decor being symbols on wealth and prosperity when arranged in grand displays along walls and on tables, creating minor spaces or landscapes in the overall room...<<*

As emphasised with the theoretical part the use of china and tableware have historically – especially during the Roman antique period and the Renaissance played a grand role in the staging of the meal. As interior décor the tableware and china further had a connotative significance as symbol of wealth and prosperity (see page 137). Arranging the tableware and food in grand displays along walls and on the tables not only added a rich interior décor to dining rooms, but made the tableware, china and sculptures food create minor spaces or landscapes in the overall room. Making the plates, cups, dishes and food become tangible architecture forming a bodily sensuous setting around the meal experience and our social lives. With the theoretical part I furthermore concluded that in both the cases of Villa Hadrian and Madeleines, as well as the historical examples outlined in the theoretical introduction, strong characteristics on the relationship between food and architecture were seen with the unification of visual, tactile and auditory performance combined with the important flavour or scent of food.

Food + Architecture + Performance

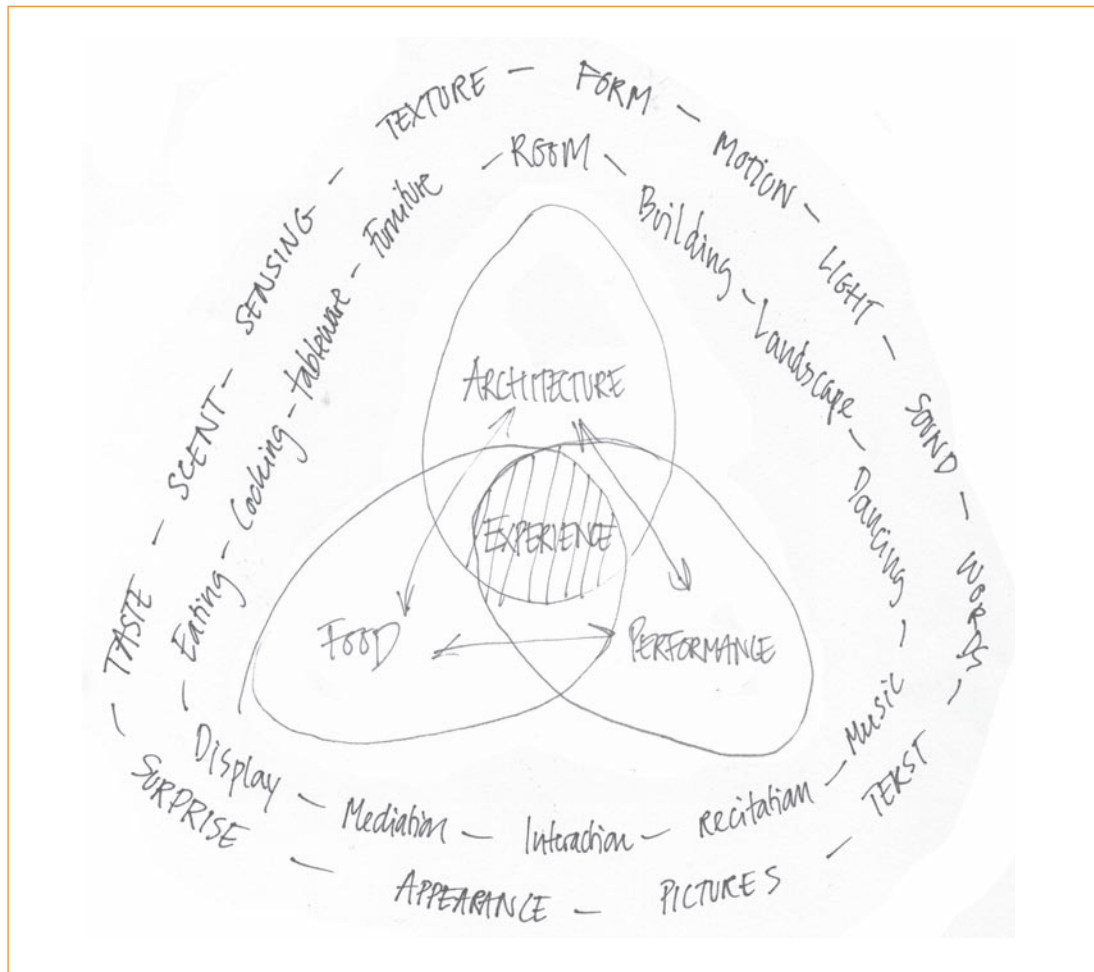


Fig. 7.2

Food + architecture + performance = Experience

With the theoretical part some general characteristics were formulated describing the coherence between the cases of Villa Hadrian and Madeleine's Madteater, emphasising the importance of architecture, food, and performance relative to the good meal experience. Those aspects are as well utilised to create attention towards the promotion of Figgjo chinaware. Elaborating on the illustration in figure 6.3 (p. 156), present diagram seeks to elaborate on some of the aspects outlined with the theoretical part describing the good experience through architecture, food, and performance. Especially aspects as surprise and taste experiences through movement, form, scent, sound, and light where emphasised.

With the theoretical part some general characteristics were discovered, outlining the close interrelationship between the fields of architecture and food. As well as inscribing the meal in an important experience-minded atmosphere putting focus on the values of eventful food and sensuous performance. The sensuous performance was both historically with Villa Hadrian as present with Madeleines, expressed through elements of movement, sound, sight, taste, scent and surprise, as also outlined in chapter 6. Considerations on the experience value of the performative settings orchestrated by the architecture and utilizing the sense of food to create specific focuses, was therefore what I in the theoretical part proposed to employ in the concept development of a Millennium Triclinium staging the future promotion of Figgjo chinaware. And my initiate objective was in relation hereto to create an explicit link between the experience and promotion of china by means of *food*, *performance*, and *architecture*.

This idea further developed into the concept of creating a dynamic space inviting to engage in- and inspire the creativity of the plate. Thus, creating an architectural experimental setting altering the perception of tableware. The notion of experimental in relation hereto becomes a matter of developing a new typology within architectural settings, seeking by means of multi-sensuous experience to promote the future Figgjo chinaware. And those considerations brought me to the following initiate concept, utilising the sense of food and the staging value of architecture to create a specific setting adding a level of performance to the experience of the Figgjo chinaware. Both in terms of the showroom facility and the food event.

The initiate idea on the background of this outline is to combine performative elements in terms of chefs experimenting with food preparations on Figgjo china (food event) or the sensuous exhibition /display of china in new elaborate manners (showroom facility), and hereby creating specific centres of display and surprise drawing attention towards the promotion of Figgjo chinaware.

This is further emphasised by the actual configuration of the spatial settings, which simultaneously as working for china display and culinary performance invites for possibilities of seating or eating during either the fair trade or the food event:

PROMOTING FIGGJO CHINA . FUNCTIONAL CONCEPT



>>
Figgjo promoting china



>>
Diners enjoying food + china



>>
Chefs preparing food

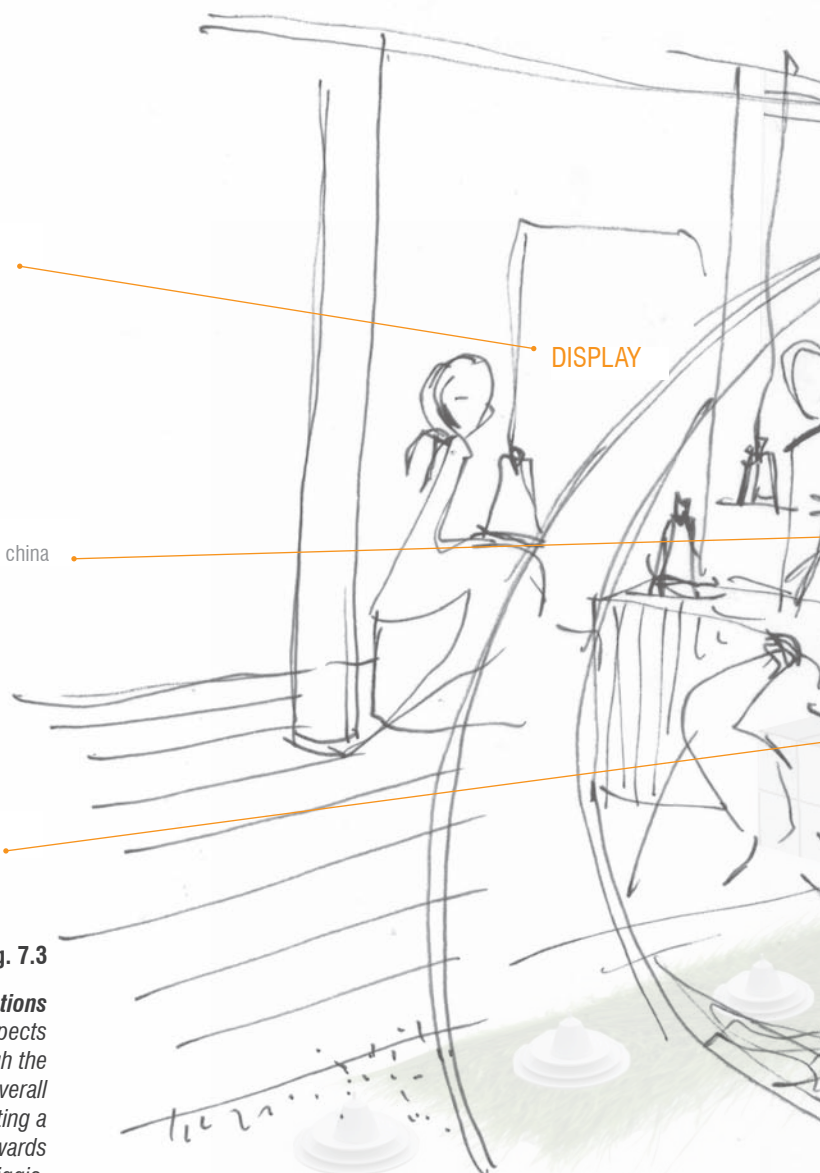


Fig. 7.3

Initiate concept development - functions
Uniting the sense of food and performative aspects of mediation, display and live interaction through the staging quality of architecture to create an overall setting engaging all bodily senses. Thus creating a sensuous experience and drawing attention towards the chinaware of Figgjo.



SHOWROOM AND FOOD EVENT FACILITY

What the diagram and drawing of the previous pages suggests are to utilise the design strategy of joining food, performance and architecture. And to utilise the design parameters; *movement, scent, taste, touch, vision, sound, and surprise* formulated with the theoretical part in chapter 6 to create an architectural setting framing multi-sensuous experiences around the promotion of Figgjo chinaware. This concept takes its point of departure in two specific promoting situations, being respectively the situation of the showroom facility and the food event. Relative to this, the functional demands for the Millennium Triclinium are guided by these two specific situations, being slightly different in both purpose and performative means.

The food event

The food event relates as referred to in the introduction directly to the desire of testing and experimenting with the newest Figgjo products. Hence, inviting a public audience to participate in minor food events where chefs prepare state-of-the-art-food servings. With the concept of using food, performance and architecture to create experiences to promote Figgjo chinaware, the food event will as such work as a kind of eventful laboratory. Where upcoming- as well as professional elite chefs, Figgjo designers, and diners are intentioned to form an environment of invention and creativity. An example of the consumer involvement seeking to add experience value to the promotion of Figgjo china, as well as simultaneously receiving consumer response on the use of the china, was the initiative seen with the Food Event arranged in collaboration with Gastronomisk Institutt (see page 165). These "first-hand" experimentations are intended to form the further basis of developing new chinaware and are presumably implemented through a series of public food events and culinary performances that will culminate in the Bocuse d'Or Europe 2008.

The showroom facility

The showroom facility on the other hand relates more directly to the actual promotion of Figgjo chinaware on international and national trade fairs. And the showroom or trade fair scenario represents the more common of the ways Figgjo ordinary chooses to promote and present their products in public, besides brochures and personal contact to tableware distributors. But the showroom also in its present state represents a setting and arrangement of the china which perhaps too much resembles other china companies ways to promote their china. It is therefore as referred to in the introduction a strong wish by Figgjo to challenge the present way of promoting Figgjo china at trade fairs and exhibitions, by for instance involving the spectators and consumers more in the presentation of the china; potentially inviting

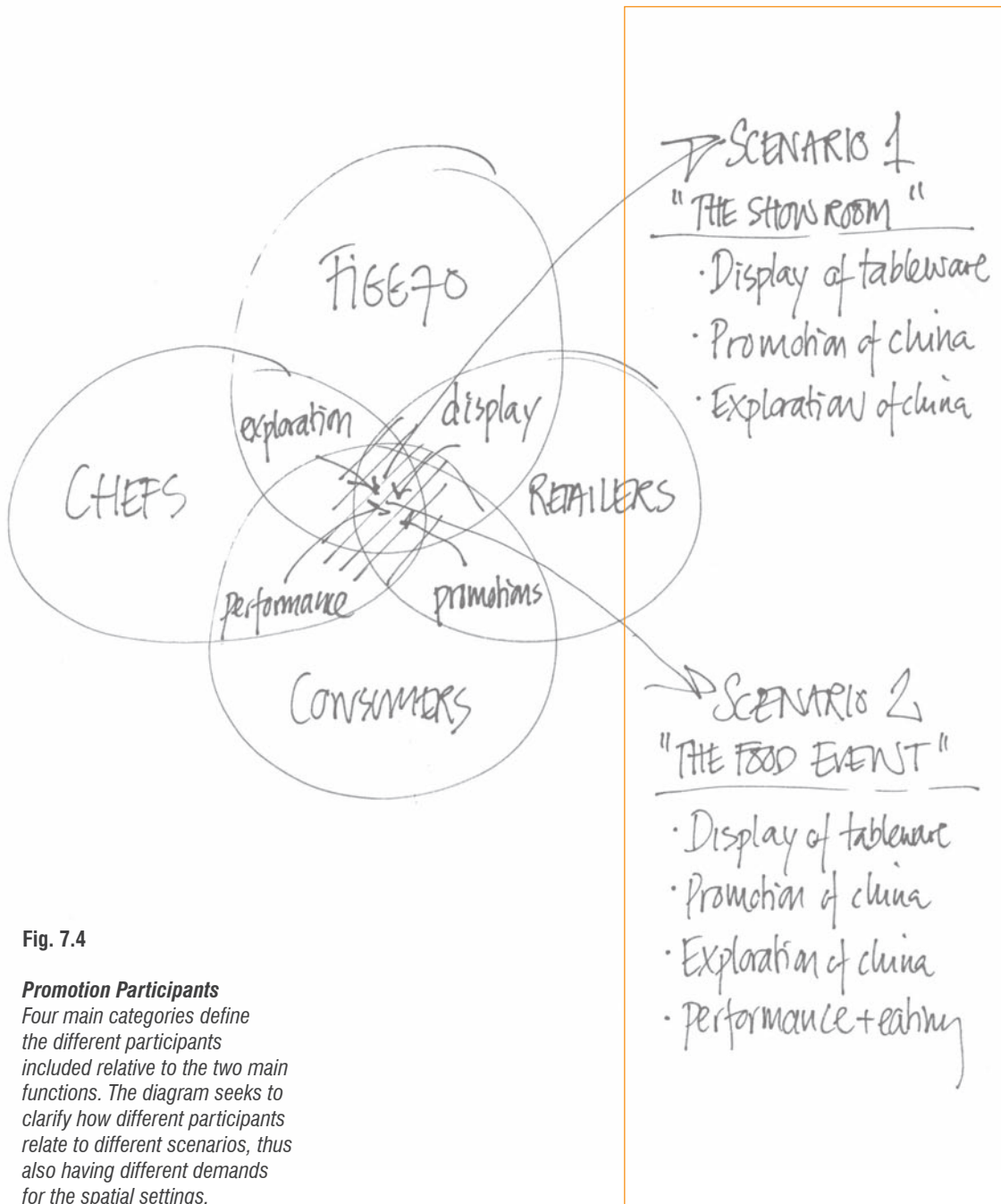


Fig. 7.4

Promotion Participants

Four main categories define the different participants included relative to the two main functions. The diagram seeks to clarify how different participants relate to different scenarios, thus also having different demands for the spatial settings.

for exploration of the use and challenging the perception of the Figgjo china.

With these exhibitions the limits of exhibition manners and space are, however, often quite restricted. Whereas the utilization of actual food preparations and eating facilitations are often not allowed. As such the challenge of the showroom is to create attention towards the Figgjo chinaware, creating a multi-sensuous experience and intriguing experience of the china without the use of actual food products or culinary performances. But still incorporating the possibility of extending the setting for additional performative food events, and culinary servings.

Figgjo programme scenarios

Summarising the previous pages, the architectural setting relates to two rather different promotion situations, also incorporating different participants. Still the goal of the design proposal is to unite as many of the functions as possible. Ultimately creating a setting which by very few means are able to cover both functions of the showroom and food event, and address different promotional needs by Figgjo.

However, to fully understand how a proposal for an architectural setting potentially can enhance the promotion and experience of Figgjo chinaware, it has in the following sections been chosen briefly to elaborate on the two different scenarios; *the showroom* and *the food event*. This as means to illustrate the scope of the different situations, as well as using the specific cases as background for preconditions and spatial demands, forming the final room programme and concept for a Millennium Triclinium.

The two selected scenarios are respectively the *Hotelympia fair* held in London, England in February 2008, and the *Bocuse d'Or Europe* Culinary competition held in Stavanger, Norway in June 2008. Both events are specific situations Figgjo is attending with the promotion of their china and tableware during 2008. Whereas those two cases become highly relevant examples of specific use for a combined exhibition and eating environment promoting Figgjo china.

Fig. 7.5

Promoting Figgjo chinaware demands the architectural setting to travel to Gastronomisk Institutt in Oslo, Fair Trades in London, Stockholm, and Copenhagen - as well as participate at the international chef competitions in Lyon and Luxembourg.



SHOWROOM . HOTELYPMIA 2008

ExCel in London, England

Hotelympia is among the worlds leading foodservice and hospitality fairs in Europe having existing for almost 75 years and during the spring of 2008 Figgjo is attending the fair in the section; *Tabletop*, with stand no. S2214. The trade fair *Hotelympia* with its wide range of new cutting edge products and innovations in fields of food/drink, catering, décor, tableware, bathrooms, and management facilities presents the best in tableware products from all over Europe. And the trade fair shows china in categories from most functional tableware and glassware, to the very best in fine dining.

The fair is running from the 17th to the 19th February 2008, and can be attended at ExCeL, near the Docklands in London, England. (www.hotelympia.com; www.figgjo.no)

Functions and users: All the grand names within the tableware business participates. Hoteliers, restaurants, professional caterers, and tableware retailers visit *Hotelympia* searching for the latest products that will keep their establishments up to date, while adding value to the customer dining experience. The *Hotelympia* fair is therefore a very important and integrated part in the promotion of new products like Figgjo's; *Figgjo Front Dining* at the international tableware market. Furthermore the fair offers an exclusive opportunity to promote not only some of Figgjo's newest products, but also present the general skills and opportunities within Figgjo tableware. For instance combinations possibilities and application of customised decors. Therefore Figgjo often chooses to present both new products and "old" products at the different fairs, seeking to communicate the wide span and exclusive possibilities of choosing Figgjo china. (Figgjo, January 2008)

Preconditions: The exhibition stand must accommodate various types and amounts of china; ranging from single objects of for instance the *Figgjo Front* series or total sets of tableware from for the *Figgjo Front Dining* or other series as the *Figgjo 35*. Furthermore the stand must provide exhibition space for information brochures/pictures/billboards, storage room for additional china/tools/information material, as well as allow for movement of exhibition personal (1-2 persons from Figgjo) and fair attendees studying the china. Finally the transportation and assembly of the exhibition stand demands for easy manageable elements; limited in size and weight to allow for two or three persons to carry and mount the entire setting within a limited time span. As well as the architectural setting and décor of the stand must fulfil general trade fair regulations, concerning fire proofing, relation to flooring and ceiling heights and access to power supplies (see room programme, page 190-193).

Fig. 7.6

***Plandrawings of section
"Tabletop" at the Hotelympia
2008 fair.***

Intentions and challenges: The higher purpose for Figgjo by attending the trade fair, hence the use of the showroom, is the ability to attract potentially new distributors and consumers by promoting their newest china and generally providing a wide picture of the Figgjo skills within tableware production and design. Furthermore the attendance at the trade fair has a second purpose of networking, both with chefs, tableware distributors as well as other china producers, making sure always to know the contemporary trends and demands for the professional china business. Hence, the showroom setting becomes the public face of Figgjo. Simultaneously communicating the skills of Figgjo as well as having the ability to stand out in the crowd and draw attention towards Figgjo products. Specifically the ability to stand out in the crowd, and draw attention is the challenge of the architectural setting, potentially forming a space attracting attention towards the Figgjo china, and inviting the audience to touch and explore the china. Instead of just passing by in the huge amount of surrounding tableware offers from competing companies. The architectural setting must be able to lure and tempt passing spectators without revealing the entire narrative at once, simultaneously providing new perspectives on the china and Figgjo as spectators decide to enter the stand.

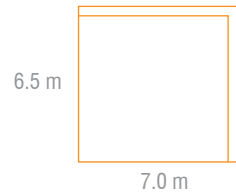


TABLETOP, HOTELYPMIA

1 Figgjo stand S2214

- 2 LSA
- 3 Con. Chef supplies
- 4 RAK Porcelain
- 5 Utopia Tableware
- 6 Etemum
- 7 Typhoon
- 8 ADI Trading
- 9 Ohomette
- 10 Robert W. Designs
- 11 Grayhott Pottery
- 12 Xing Xing
- 13 Royal Doulton
- 14 Foodcare Systems
- 15 Dudson
- 16 Arc International
- 17 Steelite International
- 18 DayMark
- 19 Euro Pouch
- 20 Wade Ceramic
- 21 Revol
- 22 Churchill Dining Out
- 23 Villeroy & Boch
- 24 Elia
- 25 La Porcellana
- 26 Deshoulières
- 27 TSI Transworld spec.
- 28 Fairmont & Main
- 29 Euro Candle Lamps
- 30 Eves IHA
- 31 Bunzl Lockhart
- 32 John Artis
- 33 Warings Furniture
- 34 MAXwell & Williams
- 35 Neville
- 36 Tunisia Porcelaine
- 37 DRH Collection
- 38 Cel. Paper & Plastics
- 39 Pacific Market
- 40 Sarreguenines
- 41 Studio William
- 42 Amefa
- 43 Parsley & Riedel
- 44 Wedgwood



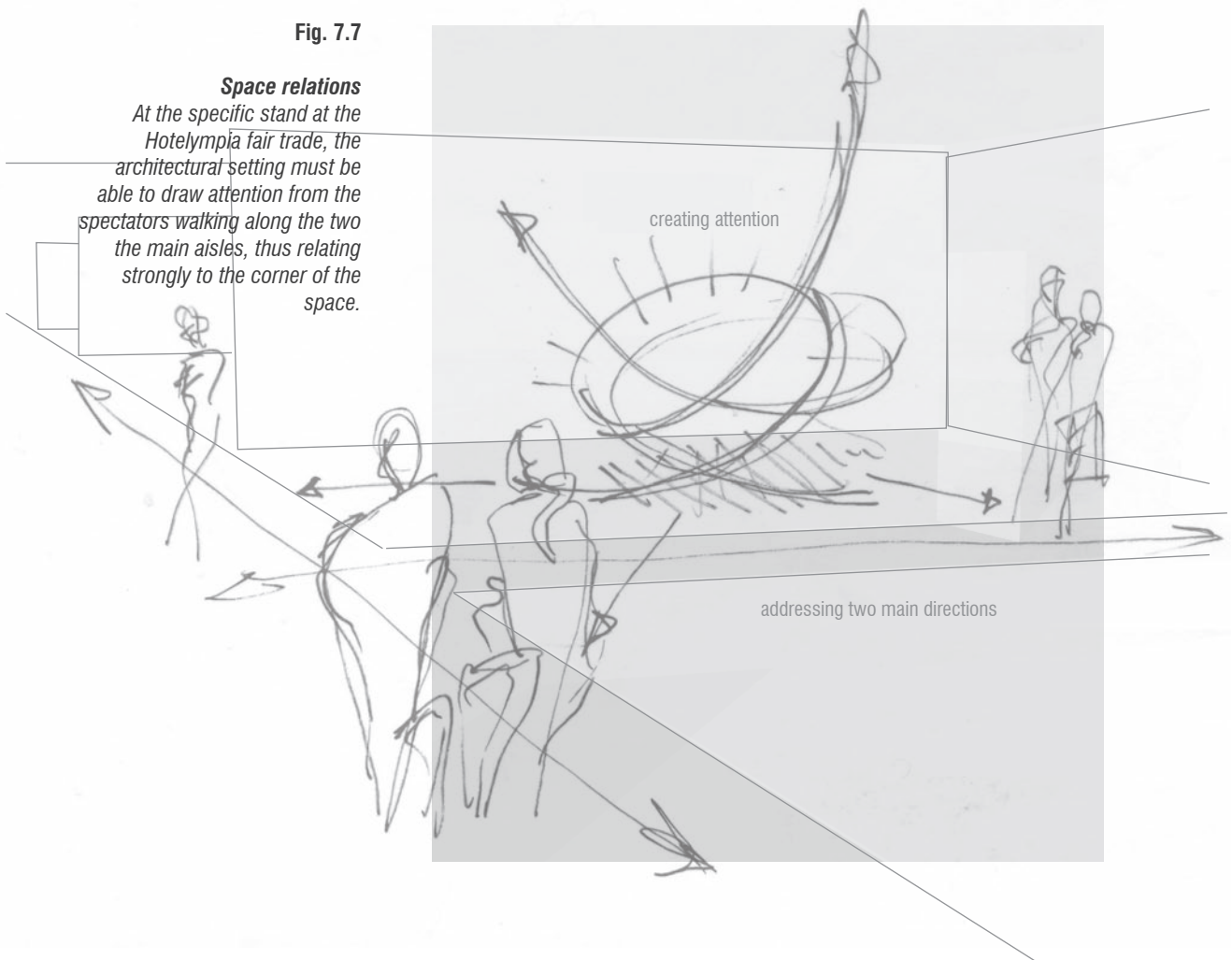


perspective drawing
FIGGJO STAND S2214

Fig. 7.7

Space relations

At the specific stand at the Hotelympia fair trade, the architectural setting must be able to draw attention from the spectators walking along the two the main aisles, thus relating strongly to the corner of the space.



FOOD EVENT . PRE-BOCUSE D'OR EUROPE 2008

Gastronomisk Institutt in Oslo, Norway

Bocuse d'Or Europe is the European prequalification rounds for the actual world cup; *Bocuse d'Or*, which is held every second year in Lyon in France and which is considered one of the most prestigious culinary competitions on individual level in the world. For the first time ever the Bocuse d'Or Europe is held in Norway, as a prequalification round to the Bocuse d'Or held in Lyon in 2009. As part of this Figgjo is selected as partner and supplier of chinaware for the competition, allowing the chefs to choose between three of Figgjo's products for their arrangement of the food in the competition.

The Bocuse d'Or Europe is held from the 1st to 2nd of July 2008 at Stavanger Forum in Stavanger, Norway and will simultaneously host a grand food fair under the theme: Food of the future. (www.bocusedornorge.no; www.figgjo.no)

Besides the specific competition held in Stavanger Forum, the Bocuse d'Or Europe competition potentially further invites for a set of pre-qualification rounds or food events, with the specific purpose of promoting the Bocuse d'Or competition and Figgjo chinaware. These pre-events of the Bocuse d'Or are to be held in collaboration with Gastronomisk Institutt and located at their new culinary setting in Oslo, Norway.

Functions and users: The choice of Figgjo as partner for the Bocuse d'Or competition becomes especially important for the general comprehension and use of Figgjo china, as the selected plates and dishes forms the background and basis of the food prepared by some of the best chefs in Europe. The design of the plates should potentially inspire the chefs, simultaneously providing a very specific frame or stage around the food. Hence, the chinaware design becomes vital for how the judges perceive the final result, and it is furthermore an exceptional change for Figgjo, not only with competition and pre-events to promote, but also observe how the finest within the professional culinary business – judges, competing chefs and audience respond to the tableware.

Preconditions: Using the pre-events of the Bocuse d'Or potentially held at Gastronomisk Institutt in Oslo as background, the architectural setting around the food events should first of all create a spatial setting framing or facilitating culinary performances by elite chefs and eating facilities for the dining spectators. Not only emphasising the food and food preparation, but especially also the perception and exploratory use of the Figgjo china by the actual diners. The setting must accommodate some kind of exhibition or display area for the Figgjo china, as well as to some degree the sense of food. Preferably the architectural setting



Fig. 7.8

Rasmus Kofoed, Denmark
Preparing dishes and food at the Bocuse d'Or in Lyon, 2007.
(www.Bocusedor.com/2007)

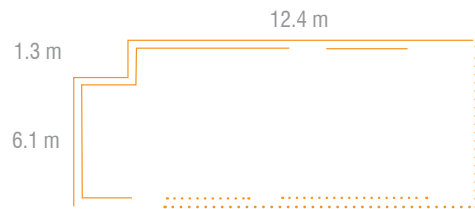
therefore incorporate some kind of seating and table surface allowing respectively diners to eat, and performing chefs to prepare and serve state-of-the-art gastronomy. Finally the setting like with the showroom demands easy assembly and transportation, as well as considerations regarding fireproofing and cleaning (see room programme, page 190-193).

Intentions and challenges: For Figgjo the higher purpose of arranging and participating in pre-Bocuse d'Or food events is the extended ability of utilizing the rich promotion of the European qualifications rounds to promote their china and receive direct inputs on use and comprehension of the china by respectively elite chefs and diners of high culinary interest. Furthermore the food events represent unique settings of cross-disciplinary collaboration between chefs and tableware production, as well as the events provides splendid settings for networking.

Fig. 7.9

Plat-Poisson, Denmark
Made by Danish chef Rasmus Kofoed, Restaurant Geranium. achieved second place at the Bocuse d'Or in 2007. (www.Bocusedor.com/2007)



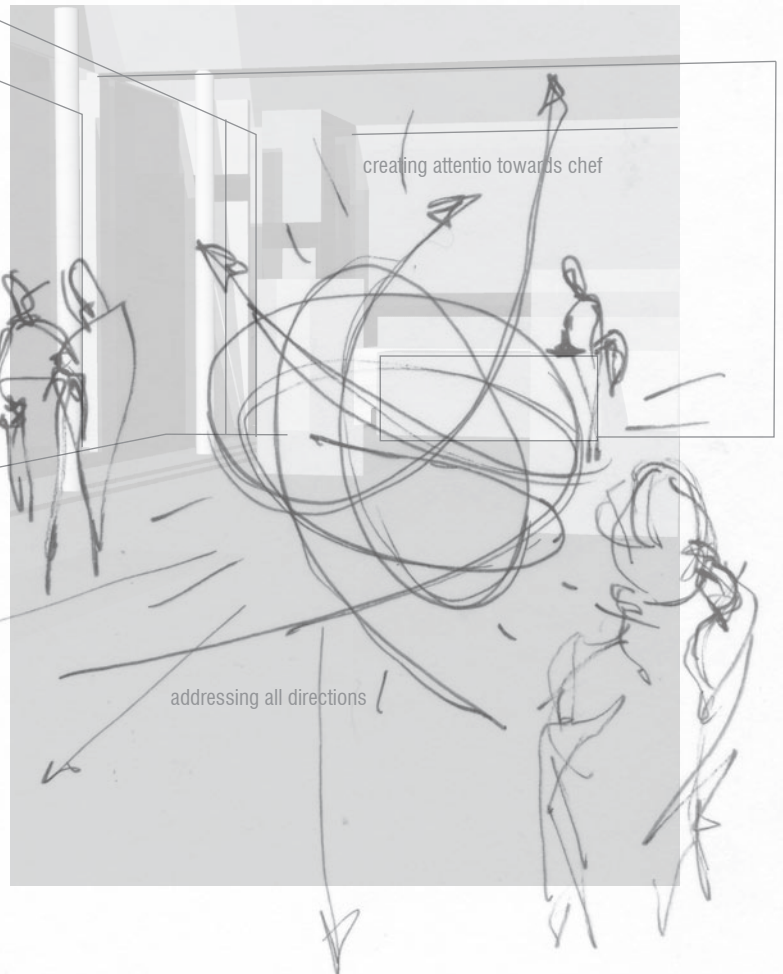


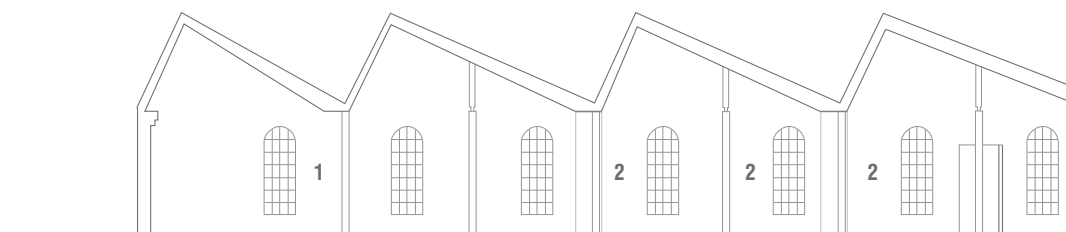
perspective drawing
DEMO KITCHEN, OSLO

Fig. 7.10

Space relations

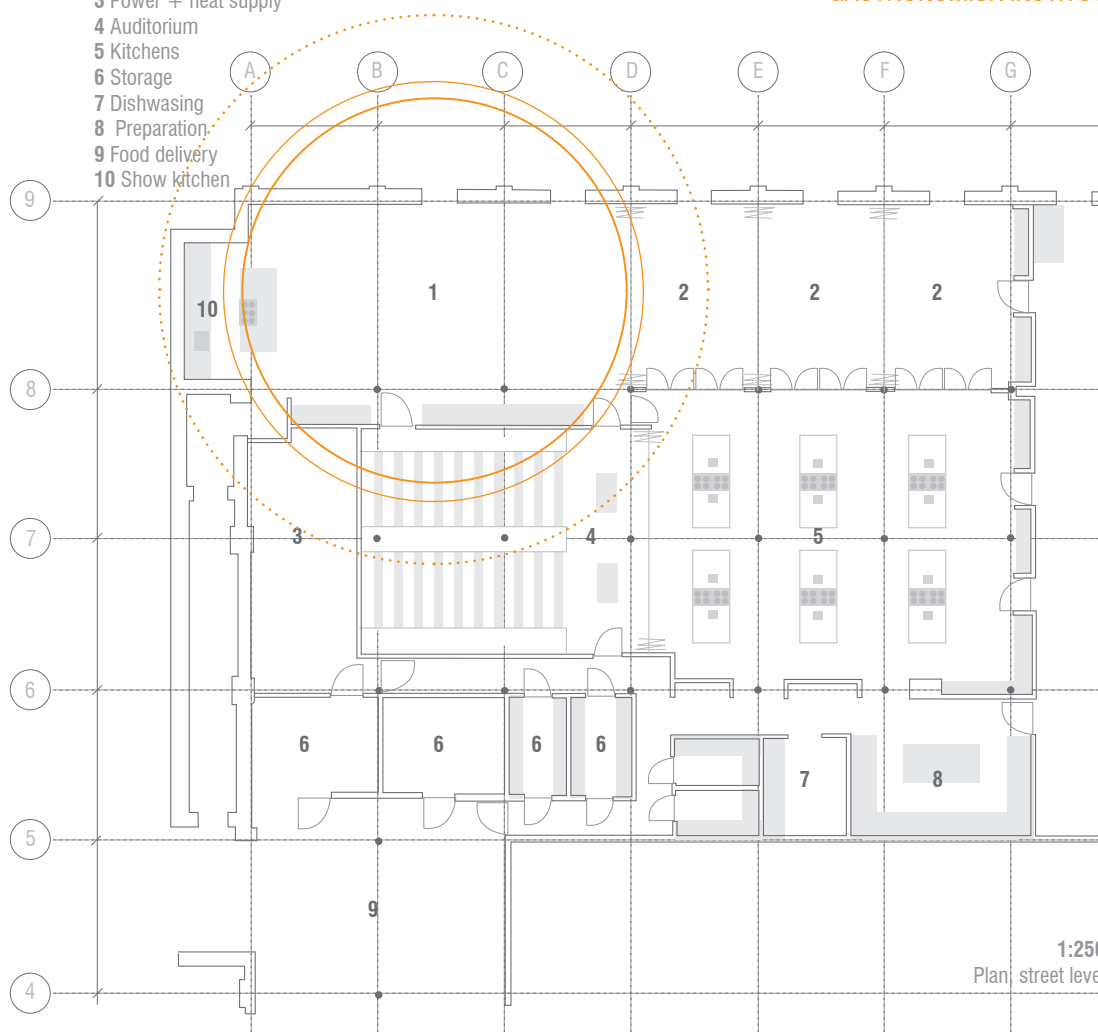
With the food event at Gastronomisk Institut in Oslo, the architectural setting must relate to the entire room, thus addressing all directions as well as drawn attention towards the activities of the performing chef.





- 1 Demo kitchen
- 2 Flexible rooms
- 3 Power + heat supply
- 4 Auditorium
- 5 Kitchens
- 6 Storage
- 7 Dishwashing
- 8 Preparation
- 9 Food delivery
- 10 Show kitchen

1:250
longitudinal section
GASTRONOMISK INSTITUT



1:250
Plan, street level

MILLENNIUM TRICLINIUM . PRECONDITIONS

With the two scenarios of respectively the Hotelympia showroom and the Bocusé d'Or food event, initiate considerations regarding the functions and spatial demands for a Millennium Triclinium were carried out. Here especially the physical needs for an interior setting, or architectural furniture facilitating respectively; *tableware display, storage, eating environment, and surfaces for food preparation/ culinary performances* were emphasised as spatial means to potentially promote and create unique experiences around the Figgjo chinaware.

Furthermore the analysis of the Figgjo profile and the brief introduction to specific Figgjo products as the *Figgjo Front, Figgjo Front Dining, and Figgjo 35* series were conducted at the beginning of this project. This analysis can be read in the Appendix A1, page 290 together with preliminary considerations on tableware differences and characteristics, generally defining the design profile and technical skills of Figgjo china.

However, to arrive at a satisfying design proposal both functionally and aesthetically, more specific information was needed for instance about the tableware sizes, furniture sizes, and general regulations on an architectural setting as the combined showroom and eating facility.

In continuation of the product consideration of the Figgjo analysis and the demands of the showroom and food event scenarios, I chose to further elaborate on the specific sizes of the different Figgjo products, to be able to specify maximum sizes of furniture elements in the final design proposal. These results are also presented in the Appendix A3 with figure A3.1, showing general examples of the diversities within Figgjo chinaware.

In addition to the elaborate considerations on the chinaware, further considerations regarding general regulations and furniture sizes were carried out as well, seeking to determine different levels of height and volume for respectively seating, eating, storage and display. This can be seen with the figures 7.10 and 7.11 on the opposite page, and from the room programme on the following pages.

Room programme

Having elaborated on the detailed information on china, spatial functions and furniture sizes through the different diagrams and illustrations as mentioned above, all of the information and considerations outlined so far with both the theoretical part and design analysis is then finally gathered and further specified in the room programme in the following pages. The purpose of the room programme is to further encircle functional and spatial needs for the final development of the Millennium Triclinium, by means of initiate considerations on movements, atmospheres, room sizes, materials and lighting relative to functions, users and context.

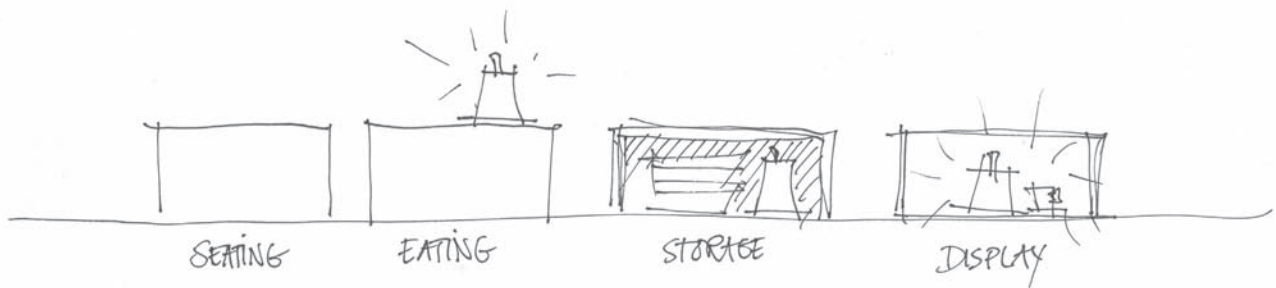


Fig. 7.10

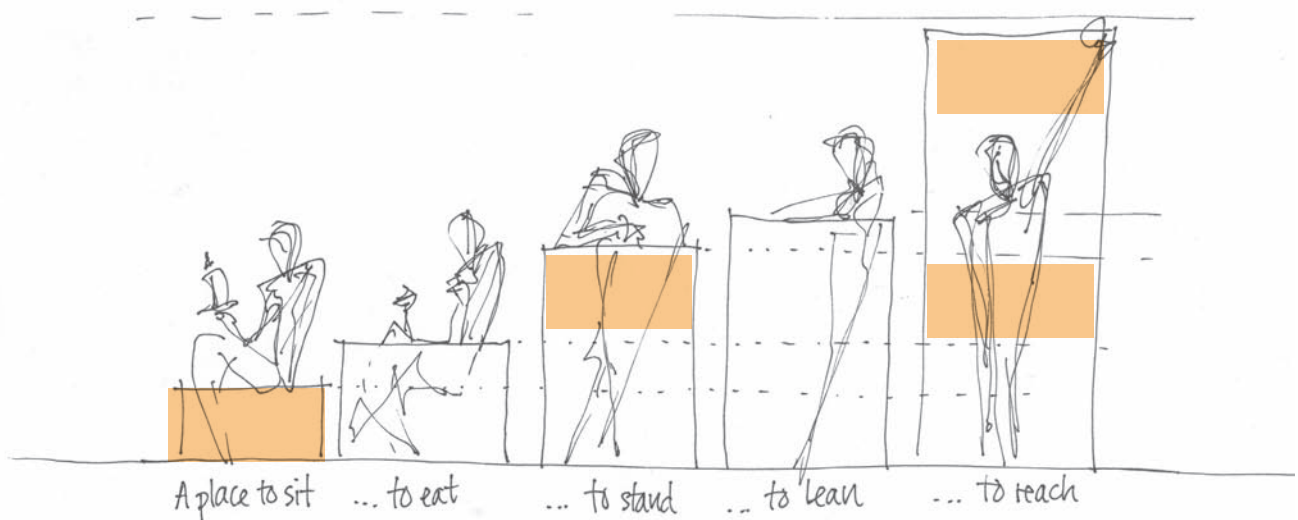
One element

With the analysis of the two contextual scenarios especially the functions of seating, eating, storage and display were emphasised as important parts of the architectural setting. The initiate idea on those functions was as such to use the same basic element to cope with different functions during the varying scenarios. This could for instance be by the use of the "box" which could work both as "chair", "table", "cupboard" and "shelf".

Fig. 7.11

Multiple functions?

In continuation of the above considerations on using the same element for seating, eating, storage and display, the idea of the combination of the different element, - or one element having multiple functions occurred. For instance an element both creating a place to sit or eat as well as encompassing a cupboard or a shelf. Or an element working both as a place to stand, lean or prepare food, simultaneously working as a partition wall or a display area. Thus creating an "interior" landscape inviting for different activities.



MILLENNIUM TRICLINIUM . ROOM PROGRAMME

PURPOSE	INTENTION	CONTEXT	SIZE (max area)	SIZE (max height)
SCENARIO 1. "SHOWROOM"	Promotion of Figgjo chinaware through display / exhibition	National + International Trade Fairs and Food Exhibitions Hotelympia 2008	(1-50 m ²) 45.5 m²	250 cm
Storage	Storage of tableware/china, brochures, product samples, power supply, tools, packing etc.			50 cm
Display + seating possibility	Display of selected chinaware (e.g. Front, Front Dining + samples with décor), brochures/ illustrations			50 cm
SCENARIO 2. FOOD EVENT	Culinary performance with preparation of food + testing and promotion of Figgjo china	National + International Food Events Bocuse d'Or Europe 2008 pre-events	(50-100 m ²) 75.5 m²	300 cm
Eating + seating possibility table surfaces	Framing the dining environment + creating focus toward culinary performances and testing of china.			50 cm 75 cm
Performance + preparation area	Culinary performances by elite chefs - exploration and testing of Figgjo china + promoting food as well as chinaware			100 cm

SIZE (users)	SPATIAL EXPERIENCE (movement, surprise, sound, sight, scale)
1-5 persons	Creating attention and lure curiosity to make exhibition visitors enter the stand. Form a clear transition between standard trade fair area and Figgjo exhibition space, and provide an embracing space for exploration and investigation, challenging and providing new perspectives on Figgjo chinaware. Articulate the form and appearance of the china, perhaps by changing scale or comprehension of china, by potentially letting the display of china partly form the exhibition room, thus creating a multi-sensuous experience and interior landscape.
Figgjo employees	Storage is preferably built-in, for instance in seating, table or exhibition units - partly hiding the content visually, as well as providing easy access from the outside. Potentially play with the diffuse sense of content through materials, colour and light, to add tactile and mysterious atmosphere and diffuse glimpses of the china.
Figgjo employees Retailers Customers/ Visitors	A space for exploration and investigation providing new perspectives on Figgjo chinaware. Creating cavities or small niches for the show of the china and avoiding the strict alignment as with ordinary shelves or stands. Inviting for exploration and movement through different exhibition heights and depths; creating an interior landscape of chinaware. Together with material and light add a mysterious or poetic sense to the perception of the china, triggering imagination at the scale of form; china as city-structures and inviting for new purposes/ use of china through exhibition elements. Potentially using the china as abstract patterns adding a tactile and sensuous layer to the furniture structure.
1-20 persons + 40 persons in additional dining settings	Inviting for curiosity and exploration of china through performative culinary experiences and new perspectives on chinaware. Multi-sensual meeting point, dining, conversation, relaxation, intimacy, Inviting for new use of china and perception of food. Should challenge the ordinary perception and use of china from the perspective of the diner and the chef. Creating a social scene around the act of eating and showing china. Staging the meal experience by letting the furniture, china and food create the room.
Figgjo Retailers Customers/ Visitors/ Diners	Providing intimacy + sensuous experience relating food, architecture and tableware through performance - giving new perspectives on china. Creating smaller niches for eating, providing an enhanced experience of the china and food, through the architecture while dining. Use of semi ceilings and floors through textiles or light weight materials creating a sense of embracing room. Intimacy, embracing the diner, providing comfort and pleasure, and giving a sense of privacy while still having diffuse glimpses of the surroundings and the performing chefs working.
Figgjo employees Performing Chefs	Central area within the architectural setting addressing all the surrounding diners. Smaller surfaces allowing for culinary performance and light preparation of state-of-the-art-food during food events. Should provide easy cleanable surfaces, possibilities of heating food and arranging food on Figgjo tableware + possibility of movement around the area to watch food and performing chefs.

MILLENNIUM TRICLINIUM . DETAILED ROOM PROGRAMME

PURPOSE	DETAILED DEMANDS (regulations, form, technique)
SCENARIO 1. SHOWROOM	<ul style="list-style-type: none"> . Transportable/mobile in small truck/boxes (limited volume) . Easy assembly within 1-2 days, limited amount of elements and spare parts, manageable by preferable two-three persons without external machinery . Unit load + size for one person = 70 kg, app. size 100 x 100 x 50 cm . Max floor load = 750 - 2.000 kg/sq.m + Floorings can be uneven . Should be abrasion-resistant (transportation, different use, assembly/ dismantling etc.)
Storage	<ul style="list-style-type: none"> . China max sizes : 595 x 410 x 275/410 mm (l x w x h) . 2-3 cabinets, should be closed for public use but still functional during exhibition . Lighting and power supply – covering of cables and wires . Power supply = one-phase 230V . Litter can – light garbage disposal (1 possibly built-in)
Display + seating possibility	<ul style="list-style-type: none"> . Shelves max height : 230 cm, Shelves reaching distances: 50-80 cm (depth) . Shelves able to carry the weight of: 25 kg . Allow for seating areas for business talks. . Possibility of showing individual objects (Front products) or whole series (Front Dining) . Able to adapt to stands of both one, two, three or four open sides, should as such be able to stand up against a wall or be encountered from all sides
SCENARIO 2. FOOD EVENT	<ul style="list-style-type: none"> . Should be flexible and allow for variable configurations of elements/ spatial settings . Should not interfere with wall or ceiling structures . Should have artificial lighting accentuating the show of china or performance of chefs . Path/movement widths : 100 cm . Able to adapt to spaces encounter from all sides, creating its own room within the room
Eating + seating possibility table surfaces	<ul style="list-style-type: none"> . Seating : 50 x 50 x 45 cm (l x w x h), two persons seated next to each other : 120 cm (l) . Seating units able to carry the weight of : 200 kg . Table surface : 120 x 100 x 75 cm (l x w x h) . Table units able to carry the weight of : 70 kg . Should have artificial light accentuating the dining areas . Potential supplement of external furniture for dining
Performance	<ul style="list-style-type: none"> . Desk/table : 100 x 80 x 100 cm (l x w x h) . Desk able to carry the weight of : 70 kg . Easy cleaning - around elements as well as surfaces . Fabrics must be fireproofed

SPATIAL EXPERIENCE (light, sight)	SPATIAL EXPERIENCE (touch, scent, taste, surface, display)
<p>External artificial light illuminating the exhibition area + potentially natural daylight from external windows/ building openings. A clear bright artificial light built-in or “clipped” to the structure to allow for staging of the china. Create different scene settings – create different moods/ atmospheres. The light should be dimmable to be able to adjust risks of glare.</p>	<p>Use materials to communicate strength, surface/ cavities, construction, fabrication, emphasising the shape of the structure and the promotion of the chinaware. Detailing in through materials and levels of tactility in scales of room, furniture and tableware. Contrasting the hard, white surface of the china to make the china stand out.</p>
<p>Artificial lighting should accentuate the staging of the china, by play of materiality, colours and shadows. Light preferably built-in or “clipped” on the structure above the diners.</p>	<p>Materials should accentuate the white china and glazed surfaces with contrasts in colour and texture. Possibility of coloured surfaces or background materials articulating the form and appearance of the china. Potential use of fabrics and soft textures as contrasts emphasizing the embracement and close relation to the body. Further inviting for touch and skin feel.</p>
<p>Transparency and patterns in materials provides play with artificial as well as natural light, creating diffuse glimpses of surroundings and adding a mysterious/poetic sense to the perception of the china, diners and performing chefs.</p>	<p>Movement and form relating directly to the body, and providing a poetic and sensuous experience of the china through play of light and textures/ textiles. Working with contrasts in materials, strength, and form according to function – articulating the form in scales of room, furniture and tableware and the relation to the body.</p>
<p>Artificial light providing “natural” appearance of the food, not changing colour or hues directly on the plates, but potentially create a warm and embracing background illumination. Create different scene settings + create different moods/ atmospheres.</p>	<p>Potentially using textiles to lower sound reflection, materials absorbing sound thus providing intimacy and semi-privacy in an open public space. Seating areas comforting and embracing. Working with carpets, walls, and ceiling, creating partitioning and diffuse glimpses, as well as directing movements within the furniture.</p>
<p>A clear light able to accentuate the central stage area around the performing chefs. The light should be able to adjust to different directions, and to some degree create a sensuous atmosphere around the culinary performances during the food event.</p>	<p>Table surfaces exposed to food and culinary performances should to some degree be hygienic and easy cleanable. Potential use of nanotechnology and fabric coatings to avoid dirt and provide washable surface? Or using contrasting materials to accentuate the area of culinary performances?</p>

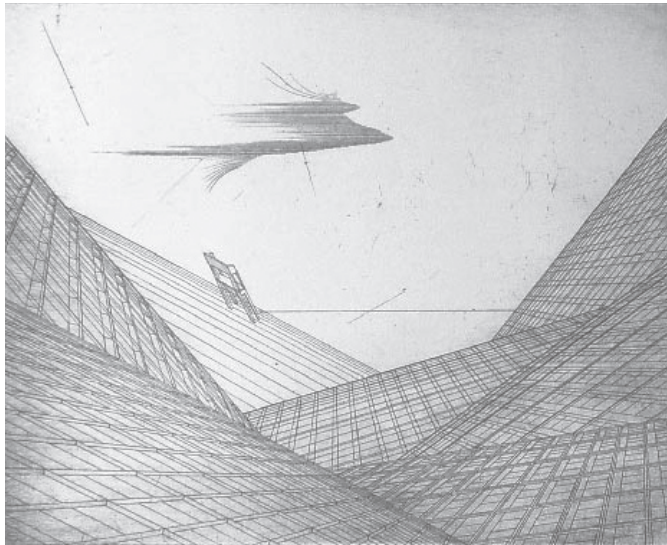


Fig. 8.0

Constructing interior landscape
Drawing by Stefan Wewerka,
(Fischer & Gleiniger 1998)

Chapter 8

DESIGN PHASE . DEVELOPING THE SHAPE

INTERIOR LANDSCAPE

In continuation of the previous chapter's considerations regarding respectively purpose, contextual settings and functional requirements, the purpose of present chapter is to further encircle the development of the Millennium Triclinium as part of the actual design phase. This is done by fusing the initiate considerations of the design part with the design strategy developed throughout the theoretical part.

Looking back, the requests and preconditions put forward by Figgjo deliberately led to an interior focus during the theoretical part. Comprehending the notion of architecture not only in scale of buildings, but as *phenomena* encompassing also scales of furniture, tableware and perhaps food. This notion on architecture as phenomena resulted in a theoretical study leading to the design strategy of "*architecture as staging*" utilising the joining of *food*, *architecture* and *performance* to create multi-sensuous experiences around the promotion and development of Figgjo chinaware. In relation hereto the five parameters of *path*, *landscape*, *grotto*, *surface* and *display* were emphasised to create a sense of *movement*, *touch*, *sound*, *vision*, *taste* and *elements of surprise*.

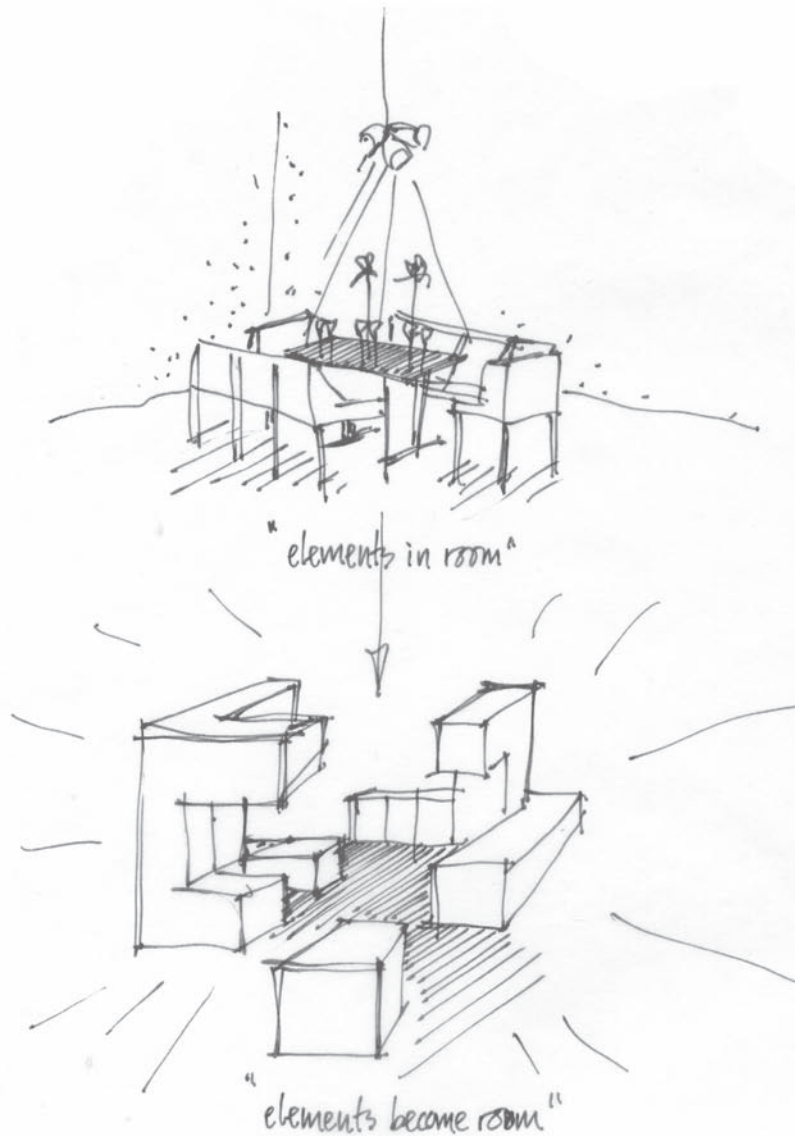
SCALE

Together with the historical and theoretical study as well as the initiate considerations of the design part, these design parameters points back at the notion of architecture as phenomena and the comprehension of architecture in scale of room, furniture, tableware and food.

In relation hereto the difference in settings between contemporary restaurants and historical banquets was further emphasised with the theoretical part. And it was outlined for instance how you, as you enter the contemporary restaurant in most situations are met by the same "standardized" situation of the table setting encompassing chairs, plates, glasses, and cutlery. Whereas with the historical banquet you were embraced and seduced with an interior landscape of plates, silverware, and crystal. The architecture of the banquets embracing all scales of design. Making even the dinner table and the china a landscape of voluminous and lavish structures or forms inviting you in. As also emphasised with the initiate easy; *Green Rose by KPM* (see page xvii)

By means of the design strategy and the design parameters the intention with present design proposal is to reinterpret this scenario. Reinterpret the relation of tableware, furniture and room. And develop a shape where the design parameters *landscape*, *path*, *grotto*, *display* and *surface* bring the comprehension of the china into a new context.

“CREATING ROOM IN THE ROOM”



>> *An architectural notion which deviates from the ordinary perception of furniture, tableware and food as elements or objects in the room, but which instead initiates a concept of furniture, tableware and food as architectonic elements forming the room.* <<

Fig. 8.1

"Elements in room"

With the concept of "elements as room" the furniture and tableware become architecture by taking on the role of floor, furniture, walls and ceiling. this in contrast to their "ordinary" restaurant function as elements in the room being only chair, table and tableware.

My initiate ideas for this were the considerations of the multiple functional elements presented with figures 7.10 and 7.11. However, with the considerations of the design strategy and the design parameters in mind, those considerations quickly evolved into the proposal of the design concept *"elements as room"*, as means to develop the design proposal for the Millennium Triclinium.

Hence, with the notion of architecture as staging phenomena the proposal seeks to deviate from the ordinary perception of furniture, tableware and food as elements or objects *in* the room, and instead initiate a concept of furniture, tableware and food as architectonic elements *forming* the room.

NARRATIVE

With this concept of *"elements as room"* the furniture and tableware become architecture by taking on the role of floor, furniture, walls, partitioning, and ceiling, in addition to their primary functions of seating, table, display, storage and eating utensils.

The display of the chinaware resembles the exhibition of tableware and sculptural food, as seen with the historical banquets throughout the theoretical part. Here the display of tableware breaks with ordinary dining standards, by almost forming entire interior landscapes of dense china aligned in strict patterns on surfaces of both tables and walls. With the concept of *"elements as room"* this image is transformed into the comprehension of china as sculptural pattern, being utilised to create a three-dimensional surface intertwining with the structure of the architectural setting – perhaps even forming part of the setting?

My proposal is as such to utilize the comprehension of china as abstract sculptural object as a narrative and promotional means to create new perspectives on the function and use of tableware. As well as simultaneously utilising this sculptural pattern of chinaware to create surprising, spectacular, and sensuous experiences imitating the "sense of food" without actually resembling any real food products or food servings.

With the five design parameters and the design strategy developed in the theoretical part I furthermore emphasised that the primary objective of furniture, tableware, and architecture were to meet human needs and sense of being-in-the-world. This by staging our lives and creating bodily experiences through an understanding of mass and movement together with space. Hence, engaging in the actual design proposal I strive for a dramaturgy of the room – *an interior landscape* almost, working with different room sections and staging of interiors, focussing on the linking between furniture, room, and tableware as settings around the conceptual functions of showroom and eventful food facility.

With the concept of “*elements as room*” the furniture’s and tableware’s ability to merge floor, wall, surface and ceiling further leads to the possibility of forming a “*room within the room*”, thus creating an embracing architectural setting around the exhibition of china and performative culinary events.

In relation to this aspect of the “*room within the room*” the proposal for the Millennium Triclinium further moves towards the idea of an expandable structure, where two or more “furniture elements” together forms the entire “room-in-the-room”. Thus allowing for also pulling the individual element closer or further from each other to adjust the size of the space in-between. With this aspect the structure apart is able to expand from the small size of the showroom to the larger area of the food event by very few means during assembly.

MERGING EXTERIOR AND INTERIOR

addition possibility + liberation of floor, walls and ceiling

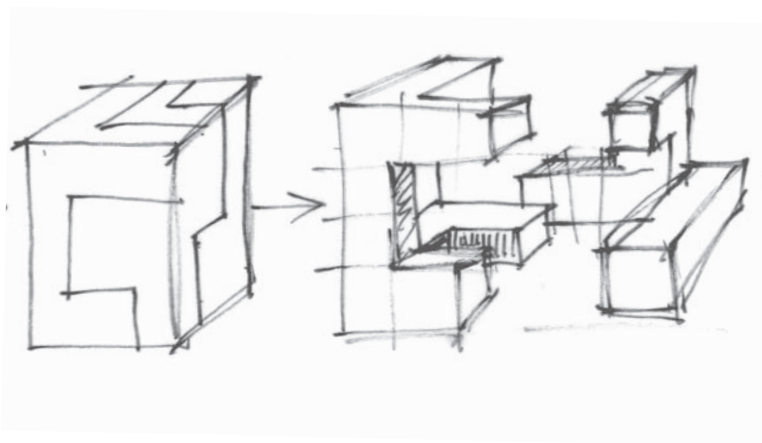


Fig. 8.2

“Expandable structure”

With the concept of “*elements in room*” and creating a “*room-in-the-room*” the proposal for an expandable structure occurred, allowing for the same elements to form respectively the small room of the showroom facility or the larger space of the food event.



Fig. 8.3

Making food + china abstract
With the concept of "elements as room" the abstract and sculptural quality of the china is utilized to create a spectacular and highly sensuous experience, creating a sense of taste without any actual food servings but by use of china and potentially herbs as surface pattern.

PATTERN



DISPLAY



SCULPTURE



PERFORMANCE



CONTEXTUAL CONSIDERATIONS

For further development of the shape and on the immediate idea of the interior landscape, “*the elements as room*” and the creation of “*room in the room*”, I went back to the elaboration on the two specific scenarios of the showroom facility and the food event. And as it was seen from the different plan drawings and conceptual perspectives, the shape of the Millennium Triclinium should be able to adapt to two very different functional scenarios, and most importantly also adapt to different contextual settings.

At the *Tabletop* exhibition stand provided for Figgjo during the Hotelympia trade fair it was for instance seen how the space available was strongly characterized by the small almost quadratic shape, and the corner addressing the two main aisles of the section area. The Millennium Triclinium would have the challenge of partly addressing spectators passing by from two different directions, but further having the challenge of dealing with the corner of the two partition walls marking the space to the other exhibitor areas (see figure 7.6). In relation to this the spatial settings during the food event at Gastronomisk Institut in Oslo were strongly characterised by the long rectangular room, having a show kitchen at the back and several entrance doors and windows to relate to. The architectural setting as such in this specific case should be able to address almost all directions of the room, simultaneously drawing attention towards the performing chef inside the actual setting (see figure 7.10, and 8.4).

As a means to try to fuse the initiate idea of the “room elements” with these two initiate observations on the relations of the Millennium Triclinium and the context, conceptual sketches considering the effect and importance of addressing different directions relative to basic form expressions were conducted. (see figure 8.4) This resulted in the initiate feeling of the circular plan configuration as the most sufficient solution towards fulfilling the needs of both the showroom and the food event from all points of views.

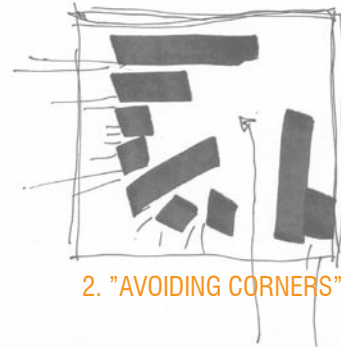
With the circular configuration the ability to address all directions simultaneously prevailed, as well as the strong visual centre occurring inside the circle could be used to focus on performing chefs or spectacular chinaware during food events and exhibitions. Furthermore the initiate idea on the circular shape eliminated any considerations on fronts and backs on the architectural setting, but rather emphasized the “*room-in-the-room*” concept by a strong differentiation between inside and out. Thus allowing the setting to create its own embracing space and immediately being able to apply to almost every possible contextual setting.

Fig. 8.4

Addressing the context?
With the aim of both creating attention towards the inner centre as well as potentially addressing all directions of the contextual setting, the initial sketches pointed toward a circular shape. This was further emphasized with the sketches 1-4 exploring effects of different plan configurations relative to directions addressed. With the sketches 1-3 the problem of “the back corner” became too dominant for the overall expression and function of the setting, whereas the circular shape had an immediate effect towards both creating attention and creating focus.



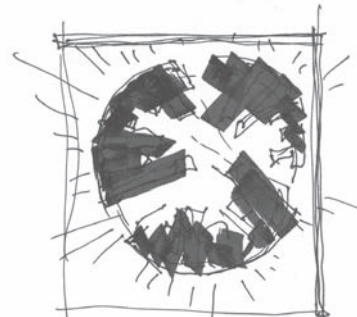
1. "FLANKING THE SIDES"



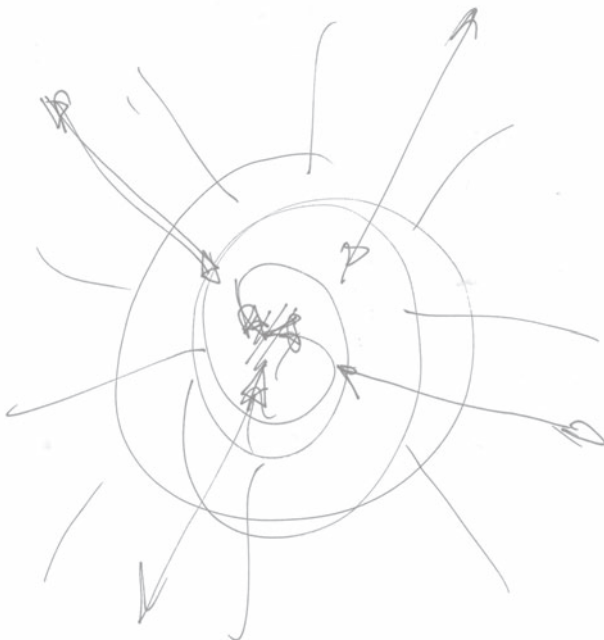
2. "AVOIDING CORNERS"



3. "CREATING FOCUS LINES"



4. "CREATING A CENTRE"



A DISPLAY-ORIENTED "TRAJECTORY" OR LANDSCAPE

With the analysis of the two scenarios and the room programme it was further emphasised how the proposal for an architectural setting promoting Figgjo chinaware at fair trades and food events, should be able to draw attention and invite spectators in to have a closer look on the china. The proposal for the Millennium Triclinium must as such perform something different from an ordinary exhibition setting, showroom or dinner facility to be able to make consumers/visitors interested.

My idea with the concept on "*elements as room*" is therefore to develop a setting or interior furniture merging the exterior with interior and making outside slightly becoming the inside and visa versa. Revealing only some glimpses of the exhibited chinaware through the perforated skin of the architecture. To fulfil this I have attempted to re-establish a degree of performativity in a sheltering aspect, developing an idea of landscape, embracement, and intimacy. And create a form which deliberately takes you into a very specific setting urging the human physical condition of standing, sitting, lying or reclining as in the Roman Triclinium and emphasised with the theoretical part.

The intention of the shape is to create an atmosphere and invite for movement of the body in varies heights to make you aware of your self. The formations almost resemble the primordial grotto or the sense of a dense forest. - A tunnel or pathway created across the centre and an outer skin in the sense that the form embraces you and penetrates a surface of distance. The intimacy occurs as you are capturing a specific amount of air and puts it into a defined area or space. - The centre of the setting or the small niches/cavities for display or seating. With the forest or grotto-like image a sense of safety is provided, but also a sense of uncomfot inviting you to explore what rests behind the next corner. Luring and tempting like the challenging aspects of the forest.

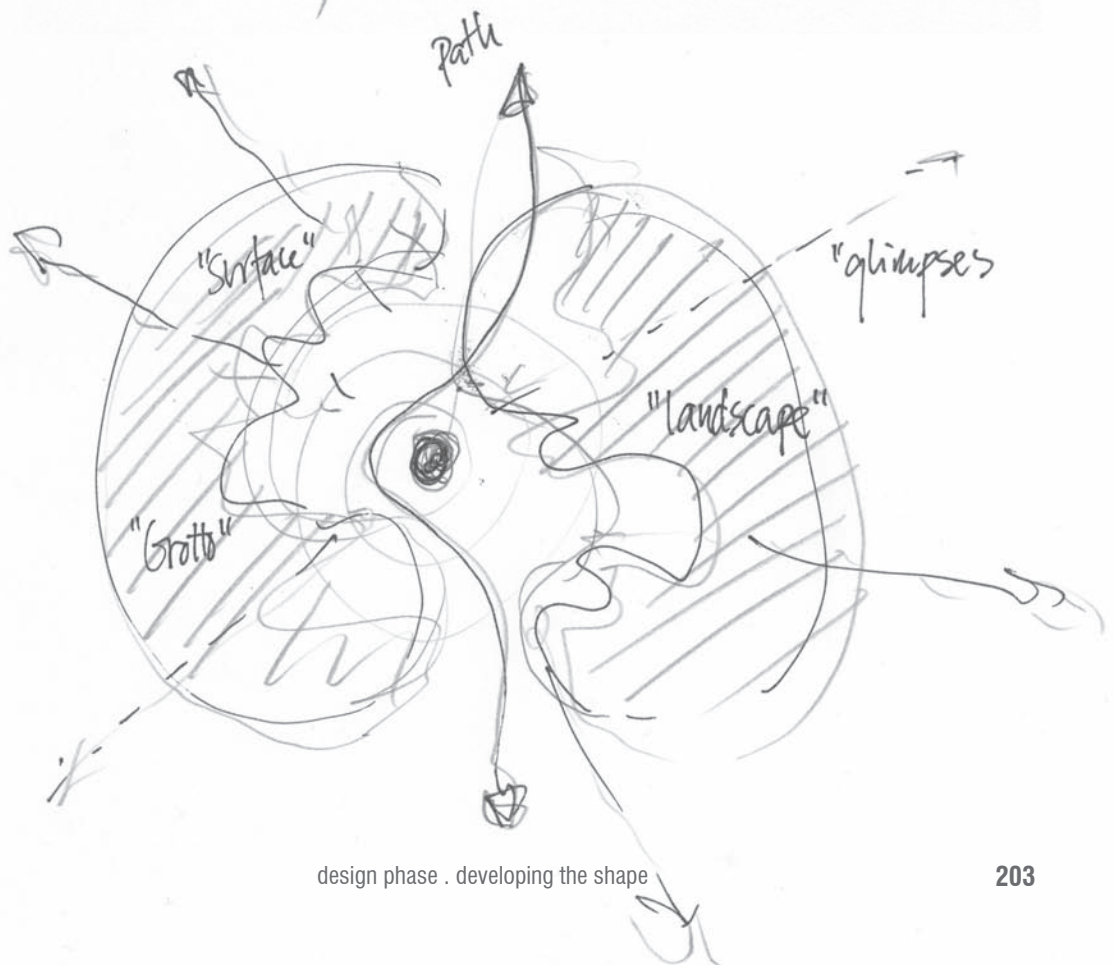
The circle or grotto as a conceptual idea has a strong ability of drawing immediate attention towards the centre. The fusing of the "*elements as room*" idea and the concept of the circular plan holds in my opinion therefore an ambient potential and intriguing aspect which have potentials of exactly drawing attention and luring curiosity by providing a form embracing itself. The form deliberately creates an exterior reaching out and an interior pulling in. By accentuating this further with perhaps colours, surface treatments, materials and light, the form articulates the "*room in the room*" and creates a shell towards the contextual surroundings (see figure 8.5).

Furthermore the shape demands of its spectators passing by, to enter the interior space to fully comprehend its true contents. Simultaneously as the form provides an interior complexity unfolding a strong centre

Fig. 8.5

Design concept

With the fusion of the design strategy and its design parameters of path, grotto, landscape, display and surface with the initiate considerations made on preconditions for the function of the showroom and the food event, the idea of the circular setting being formed by two or more furniture elements occurred. Here path, landscape, and circular shape of the "grotto" were used to create a strong focus towards the interior and the display of the chinaware.



design phase . developing the shape

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and a specific path through an interior landscape. Hence, in the showroom scenario allowing the display of tableware to grow of the floor into furniture, walls and ceiling, and in the food event allowing diners to sit or recline. In both cases the architecture engages with the body and embrace you in scales of room, furniture, tableware and the sense of food.

The form becomes an architectural expression of the embracement and the bodily involvement creating the sense of being. As emphasised with the section on phenomenology in the theoretical part. The form further holds the immediate means to allow people to re-evaluate themselves in relation to their surroundings, as well as the ordinary perception of tableware.

The idea of the landscape taking shape

As emphasised in the initiate chapter of the design part, one material is already given with the hard, white and glazed surface of the china. As also outlined with the room programme and part of the theory, being able to draw attention towards the china and make these objects stand out in the crowd demands for new perspectives on the use and appearance of the china.

With the above considerations on the initiate design proposal the ability to stand out is partly achieved with the idea of the embracing shelter creating attention and the interior landscape letting the sculptural china grow of the floor into furniture and walls. But to succeed on this interior landscape and embracing shelter, the specific use of materials and surface treatments forming the background of the display of the china and the direct engagement with the body becomes highly important.

As seen with the room programme the initiate idea in relation hereto was to use contrasting means in terms of light/shadow, colour and texture to accentuate the appearance of the china and to accentuate the luring ability of the overall setting. Taking my point of departure in this, and having the results of the theoretical investigations in mind, one natural choice of material was *fabric*.

The choice of fabric represents partly a stark contrast to the hard and shiny surface of the china, but furthermore represents an intriguing material relating directly to the skin-fell of the body.

The use of textiles in interior design can be found dating back to 6500-5700 BC near Aratolia in Turkey. (Binggeli 2007:25) The tactile qualities of fabric, thereby represents both a very old tradition but also the ability to engage with the body on a deeper level.

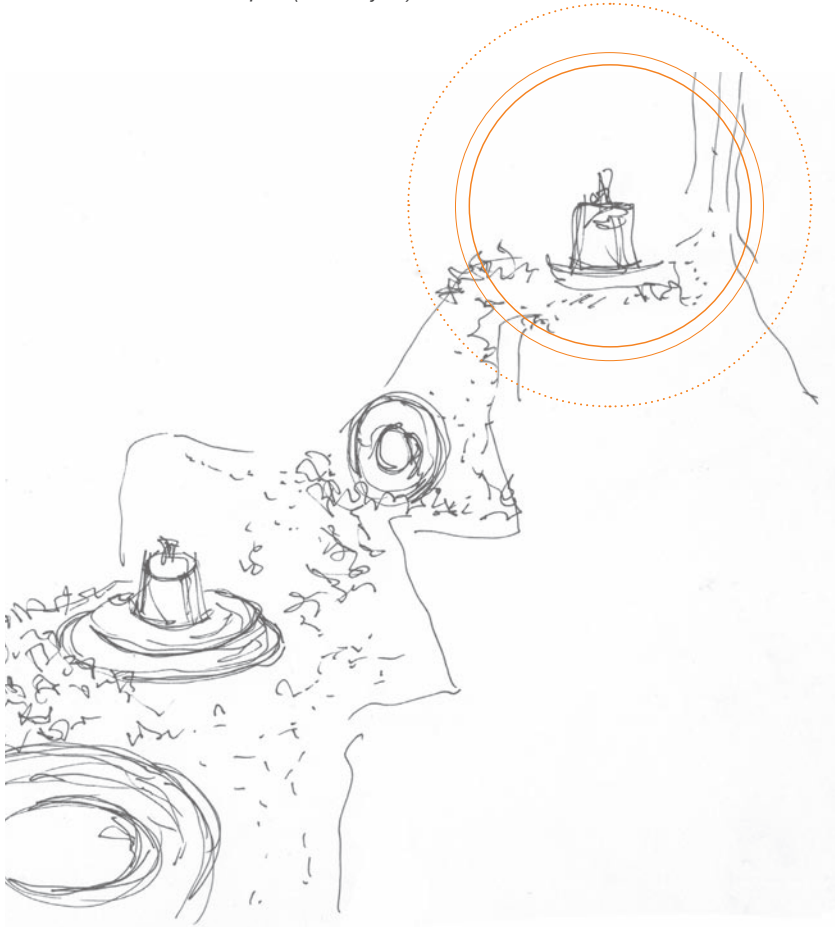
As argued for in the theoretical part texture is perceived both by touch and vision, and has in the sense of fabric a three-dimensional quality in its surface providing a strong sense of depth.



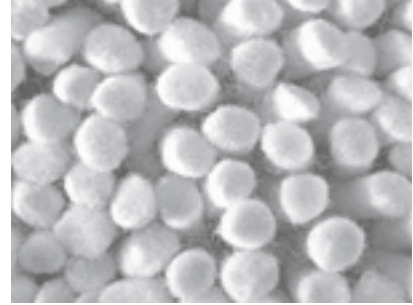
Fig. 8.6

Utilizing felt textures

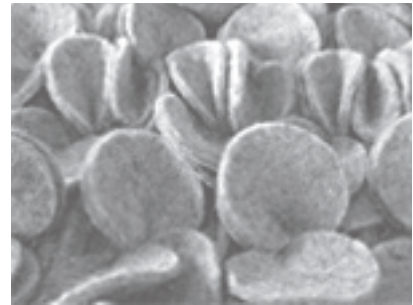
One material is already given with the hard, white and glazed surface of the china. The idea is therefore to utilize the stark contrast of the soft, dense and voluminous felt to create a contrasting background to the china, as well as create an intriguing interior landscape with levels of high tactility inviting for touch and engaging directly with the skin. Pictures to the right show different variants of the HAY carpet. (www.hay.dk)



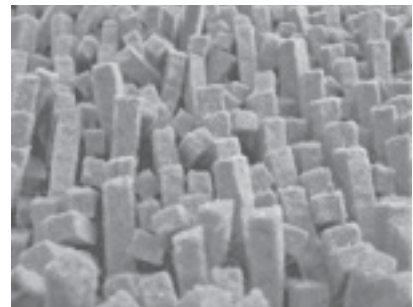
THREE-DIMENSIONALITY



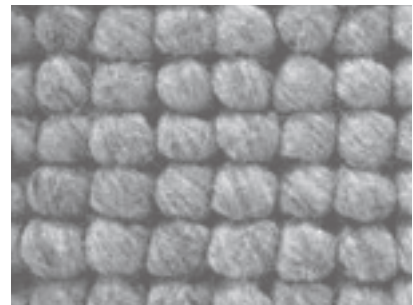
SURFACE TREATMENT



DEPTH + DENSITY



TEXTURE + PATTERNS



Following the line of thoughts from the theoretical part perhaps with the utilisation of fabric the border of yourself is no longer your skin, but the space in which you are? Perhaps you start to attach and define yourself to the space and china based on the skin of the space?

However, with these considerations, the sensuous qualities of the fabric desired with the proposal for the Millennium Triclinium are some emphasising the strong sense of depth, and the urge to touch and engage with the surface of the architecture. As well as simultaneously providing the proper background for the display of the china. And in relation hereto these considerations led to the idea of utilising felt carpets to form the interior space of the setting (see figure 8.6).

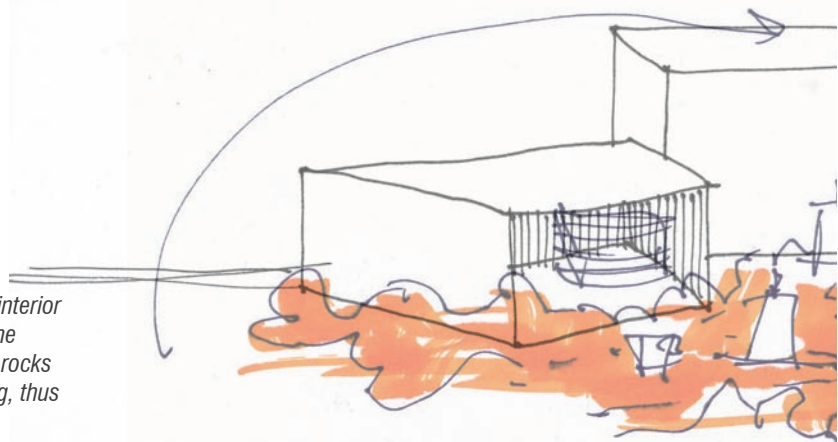
The felt carpet as material represent partly a natural but also radical solution, one could argue, toward the display of the china and the framing of food events. Because actually what in most eating scenarios form the background of the tableware, is exactly the fabric. - In shape of tablecloths or napkins. Furthermore fabric is highly utilised in the creation of furniture, as means to provide comfort and bodily warmth. (Binggeli 2007) However, with present design proposal the idea is to let the felt work as an accentuating part of the interior landscape, letting the carpet grow of the floor and like grass or moss on the surfaces of rocks and mountains cover parts of the interior setting. Just like the china grow of the floor into furniture, wall, and ceiling.

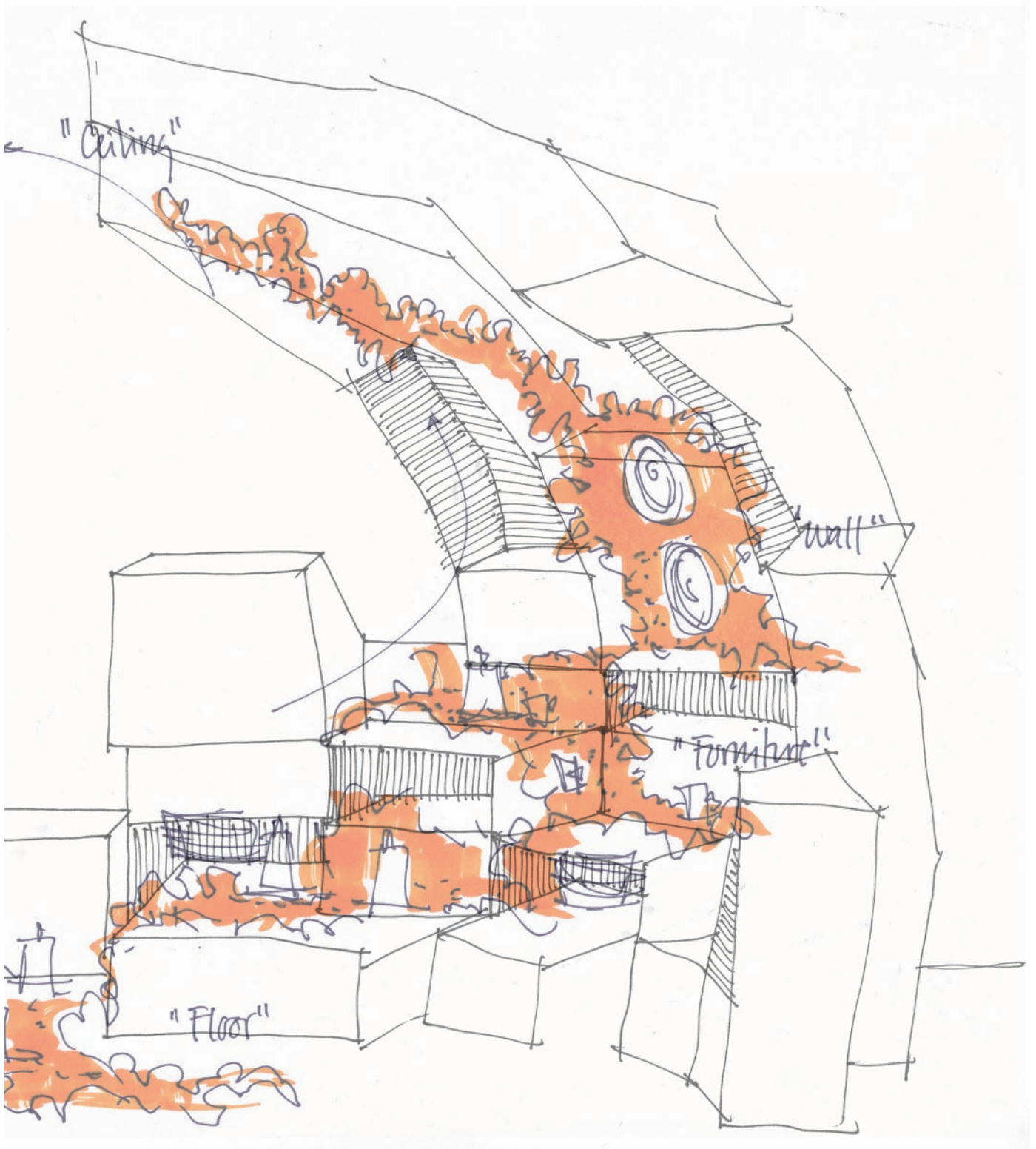
The initiate idea of the proposal for the Millennium Triclinium aims to be unpredictable through its architectural appearance and to make the perception and use of the Figgjo chinaware unpredictable by means of the architecture. This leads to the following initiate design concept in pages 208-209.

Fig. 8.7

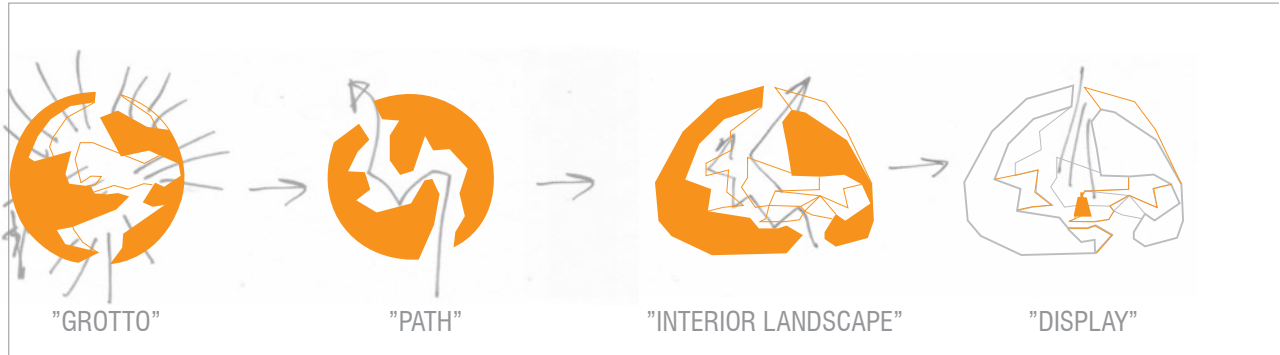
Interior landscape

The idea is to let the felt work as an part of the interior landscape, letting the "tufted" carpet grow of the floor and like grass or moss on the surfaces of rocks and mountains cover parts of the interior setting, thus accentuating the display of the china.





DESIGN PARAMETERS



CREATING GLIMPSES
no front, no back
adaptable to all sides
creating "room-in-room"
creating attention
(side view)

CREATING MOVEMENT
forcing to experience form
challenging body and sight
(top view)

creating vertical movement
touching skin by use of material
and form
embracing body and china
creating niches and different levels
for display and seating
(side view)

CREATING FOCUS
creating specific views
articulating centre and certain
products by use of felt carpet
embracing content
(side view)

DESIGN CONCEPT . **INITIATE FORM**

SCENARIOS



SHOWROOM

FOOD PERFORMANCE

EXPANDING

display and framing of china
centre as focus
binding products together
challenging perception on china via
carpet/ surface
china becomes architecture
(side view)

performance + eating
framing china and food experiences
inviting for socialization and skin feel
by use of carpet
food preparations and use of china become
central focus point
china and food become part of architecture
(side view)

expandable space
implementation of more elements
creating specific views/ focus and
articulating centre with performing
culinary activities
facilitating eating
(side view)

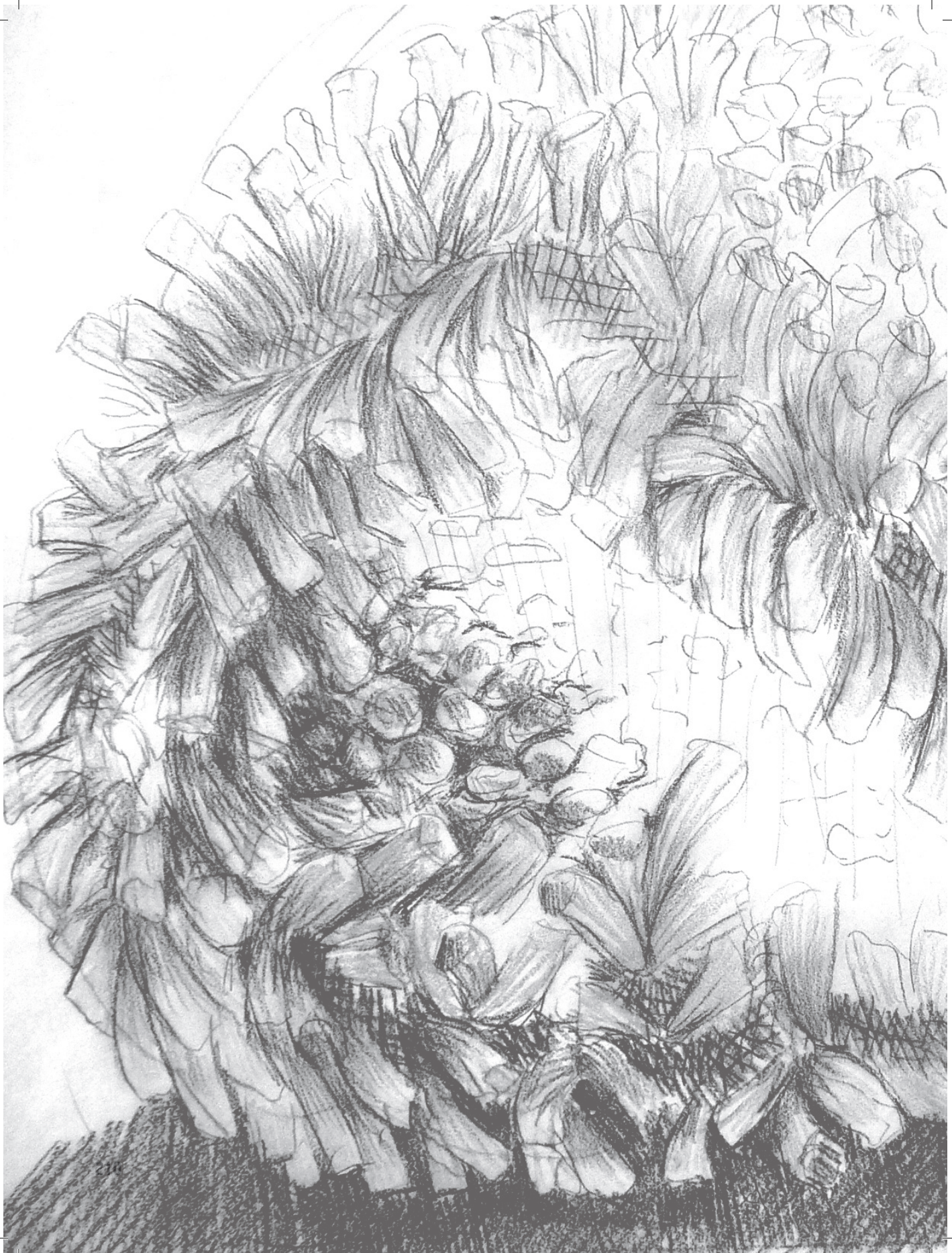




Fig. 9.0

Folded surface - felt landscape

*Perspective drawing, full-scale.
Investigating the sense of depth
and texture of the felt carpet
from HAY.*

Chapter 9

DESIGN PHASE . DESIGN CONCEPT

In continuation of the development of the initiate conceptual form and functions, the following chapter seeks to elaborate further on the actual design process and the development of a specific design proposal. However, as with the theoretical part where I engaged in a wide range of cross-disciplinary research areas the design process has likewise been characterised by several different iterations, searching for the final answer within both hand-sketching, computer modelling and physical modelling. It has therefore in the following chapters been chosen mainly to focus on the development and detailing of the final proposal, rather than strictly presenting the entire design process.

DESIGN PROPOSAL . MAIN IDEA

With the development of the initiate design concept, the proposal for a conceptual form for the Millennium Triclinium quickly arose. This resulted in the development of the idea of one primary furniture module encompassing respectively an outer and an inner structure folding together in a helix movement.

From the outside the shape of the module is strongly characterised by the directional helix movement and the hard, smooth shell-surface naturally occurring with the "spinning" structure, representing also the exterior and outer skin of the setting. On the inside the setting unfolds a soft interior felt landscape growing out of the hard shell and having parts of its matter floating out into the floor towards an invisible centre of the interior.

With the intertwining of exterior and interior, an expressive shape is formed revealing glimpses of the soft inner felt structure and the china at display through the structure of the shell. In relation hereto one could imagine have further utilisation of different surfaces by means of materials, textures and colours could emphasise the attention towards the interior and chinaware, as well as draw attention towards the performative chefs in the centre of the setting during food events.

In relation hereto the initiate idea of the proposal is to copy the shape of the primary module into two or perhaps three furniture elements, which when put together, form the entire area of the Millennium Triclinium. Hereby a specific movement or path across the inner area of the setting occurs as the structure of the interior felt carpets form a very specific form on top the floor area. The directional helix-movement characterising the outer appearance of the primary module, further transforms itself into an almost spiral-like expression when two elements are put together. And the main intention behind this expression together with the strong definition of the path is to further accentuate the centre of the interior, as well as to make the entire setting almost stand on its tip-toes, ready to embrace you as you enter the setting, as well as protects its contents of chinaware (see figure 9.1-9.3).

In case of the showroom scenario, two of the primary furniture modules are placed close together forming an intimate and enclosed space, limiting the means of access, as well as visibility from the outside. Thus deliberately forcing spectators to enter across the space, following the path or engage with the felt structure by walking across the soft carpet landscape. The felt structure growing out of the floor and into the cantilevered ceiling is intended to constitute the surface for display of the sculptural chinaware, as well as invite for physical engagement by means of an intriguing skin-feel. Perhaps even the chinaware grows out of the carpet, or crawls on top the structure as an organic element adding a further spectacular layer to the entire setting?

Fig. 9.1

Primary Module

The primary module consists of respectively a hard, smooth outer part and a soft inner felt part growing into an interior landscape.

"Primary module"

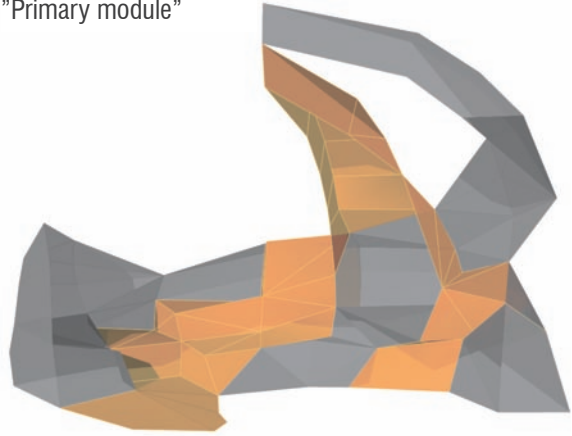


Fig. 9.2

Outer part

The outer part is strongly characterized by the helix movement, creating an embracing hard shell around the soft interior landscape.

"Shell"

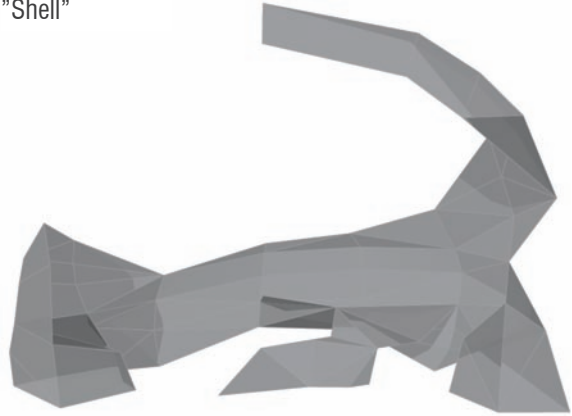


Fig. 9.3

Inner part

The inner part "grows" out of the outer shell, places itself on part of the furniture and crawls into the floor as a carpet for display of the china.

"inner landscape"

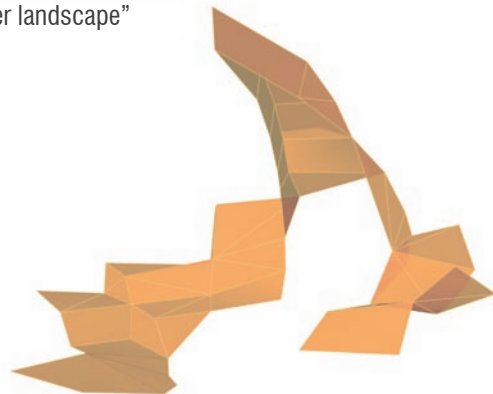
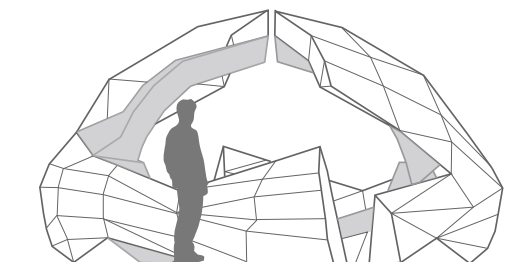




Fig. 9.4

Small intimate space

For the shoowroom facility the primary module is copied and the two parts are arranged closely together forming a small intimate space with a very specific path of movements through the interior landscapes of china.



SHOWROOM FACILITY

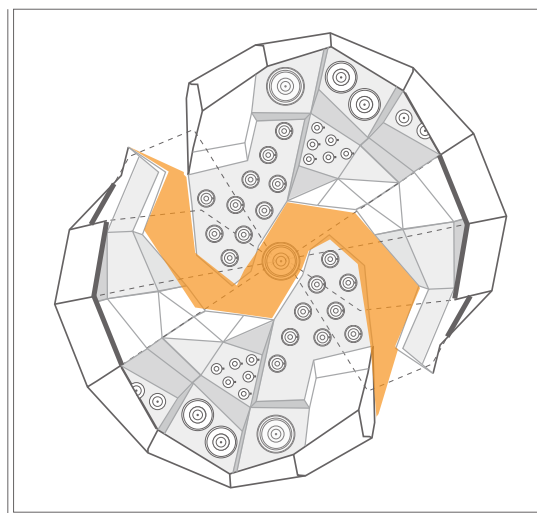
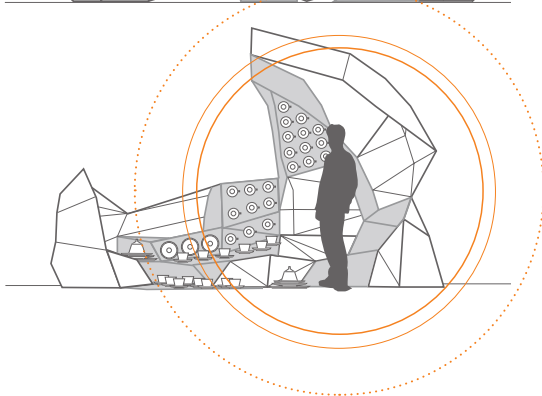
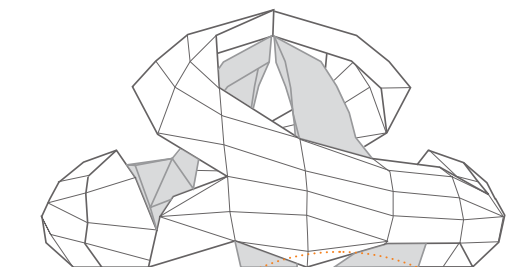
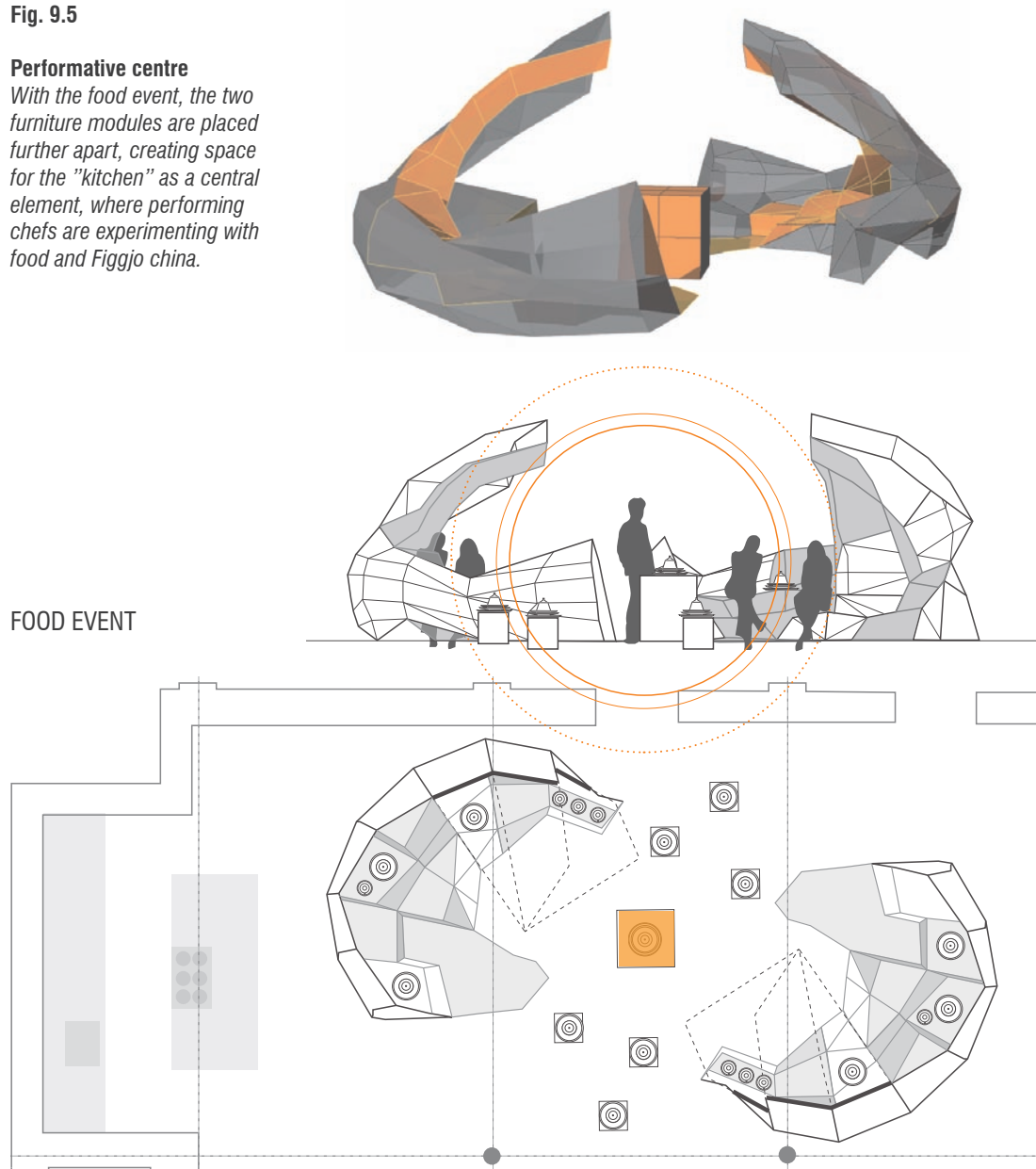


Fig. 9.5

Performative centre

With the food event, the two furniture modules are placed further apart, creating space for the "kitchen" as a central element, where performing chefs are experimenting with food and Figgjo china.



In the case of the food event, two of the primary elements are likewise placed together, however this time forming a larger interior area allowing for a third element in the centre of the setting.

This third element is the actual "kitchen", being a small unit allowing for culinary performances and light preparation of food during food events and test dinners.

Here the initiate idea is to have the structure of the "kitchen" stand in stark contrast to the remaining inner landscape, to emphasise focus towards the performing chefs as well as to utilise the centre of the setting further. Whereas the soft structure of the felt carpet in the scenario with the food event as such merges into furniture seating, inviting diners to sit and eat, perhaps half reclining on the floor or in one of the cavities of the structure, comfortably embraced by the dense texture of the carpet. The "kitchen" area rather works as a solid base or rock forming the frames around culinary performances, involving heat, water and sharp knives.

To be able to further elaborate on the spatial and architectural qualities of the initiate design proposal, an examination of structural demands and means of assembly is however need. Therefore following section in continuation of the design development conducted on the previous pages, engage in a profound form analysis, seeking to determine structural challenges on the initiate shape considerations, as well as elaborate on the further detailing of materials, construction and assembly methods.

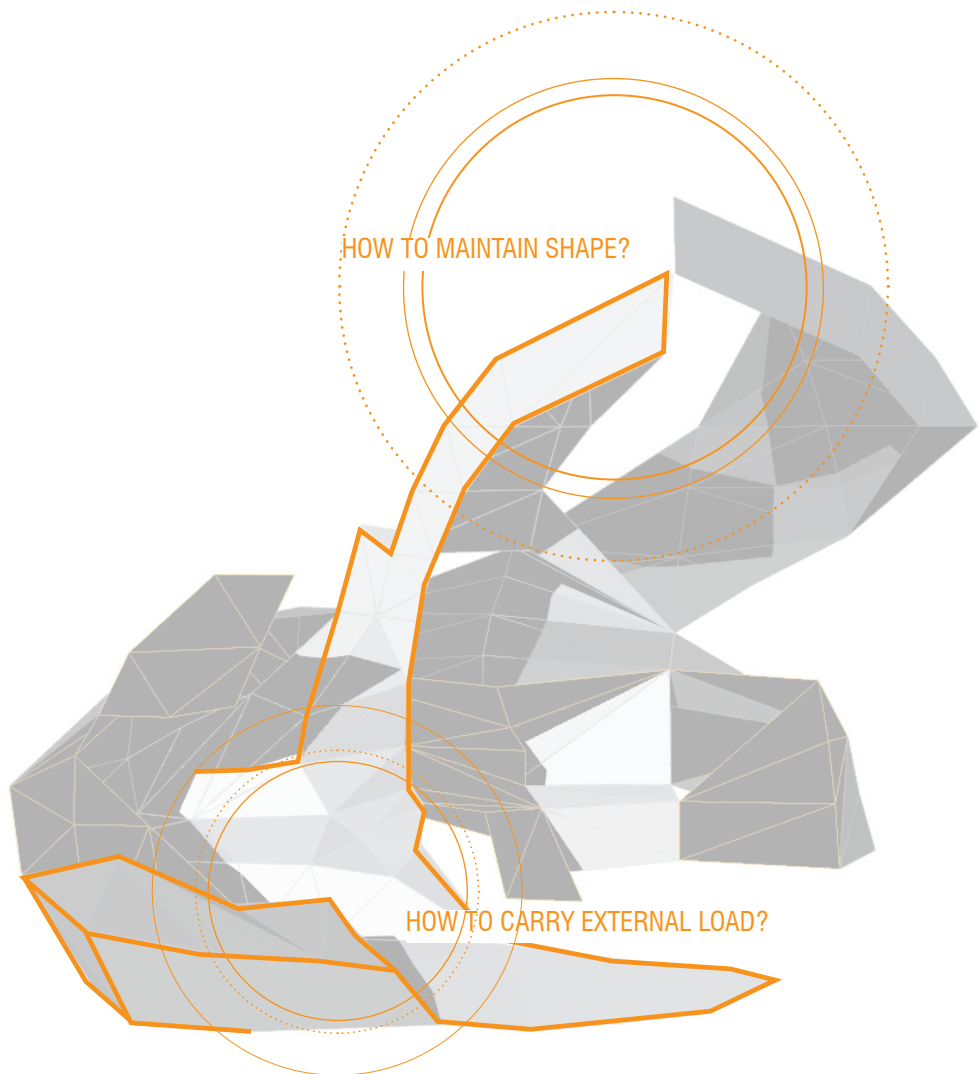
Fig. 9.6

Form analysis

With respect to the initiate design proposal developed in the previous pages, two main challenges dominate the current structural principle and realisation of the project. This is respectively how to maintain the shape of the cantilevered parts, as well as how to carry external loads of china and dining persons during food events?

DESIGN CONCEPT . FORM ANALYSIS

With respect to the structural development of the proposed initiate design developed in the previous pages, two main challenges dominate the construction and realization of the project in its current state. - One is the ability to maintain the shape of the cantilevered parts despite loads of self weight, as well as how to carry external loads of china and dining persons during food events? In the following pages further consideration on how to solve these structural challenges to obtain a sufficient design proposal are conducted.



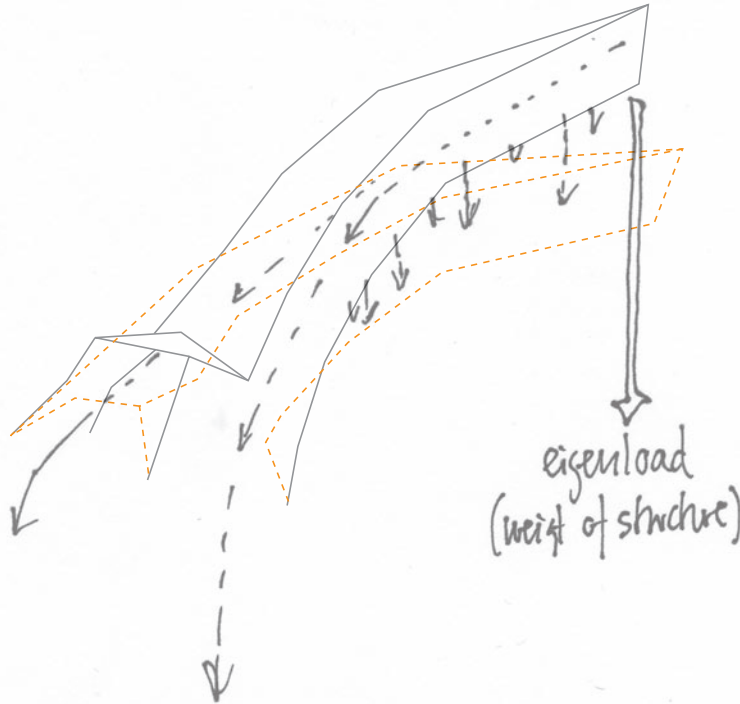


Fig. 9.7

Bending because of Eigenload

The weight of the material and textile causes the structure to bend downwards unless further considerations on the structure and utilization of the felt are made. Therefore following structural principles have been made as considerations on how to maintain the initiate shape.

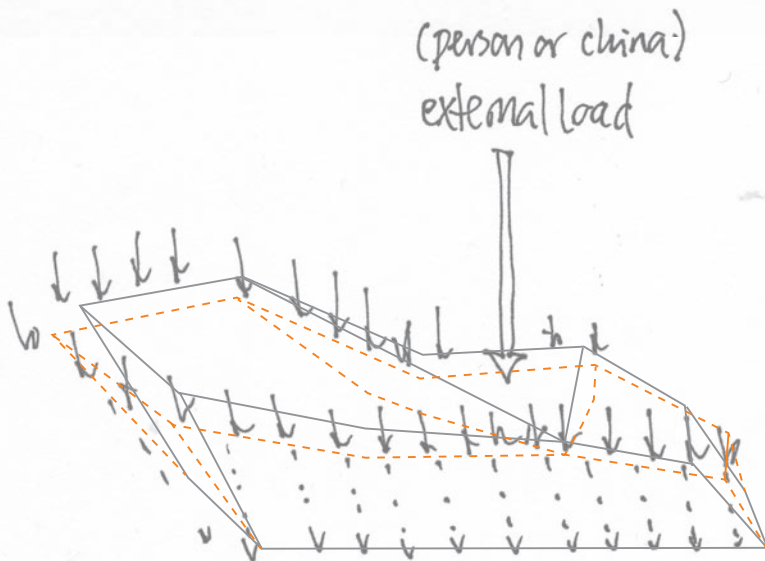


Fig. 9.8

Bending by external load

The weight of the material, china or dining persons during food performances possibly causes the structure to bend downwards unless further considerations on the structure and utilization of the felt are made.

FORM ANALYSIS. LOADS AND STIFFNESS

As mentioned above, two main challenges dominate the construction of the design proposal in its current state. Those are respectively the challenge and ability of maintaining the intended shape of the structure relative to the burdens of self weight, and the ability to carry heavy external loads affecting the structure by means of china and dining persons.

With especially the ability of maintaining the shape, and the case of the burden of the self weight from the cantilevered parts, the weight of the single elements of outer shell and felt can possibly cause the structure to bend or break, by means of very limited supports obtaining the force of the load. (see figure 9.7).

With respect to the other structural challenge and the ability to maintain the intended shape of the interior landscape, this challenge contrary the problem of the cantilevered part more relates to the direct ability to carry the weight of heavy external loads especially in the horizontal and diagonal directions (see figure 9.8). Further considerations on the stiffness of the structure are needed to assure such deformations will not occur.

In relation to these above structural challenges, two main approaches generally exist towards finding a satisfying solution on the final design proposal. One opportunity is respectively the ability of altering the choice of material to fulfil the load carrying needs. For instance increasing the thickness of the chosen material or "reinforce" the structure by means an additive strong material. The other opportunity is altering the shape of the structure to obtain the stresses and strains of the loads on the structure more sufficiently. For instance eliminating the cantilevered part or reducing the volume actually being cantilevered.

However, with the strong personal wish of finding a sufficient solution fulfilling both the spatial desires, and structural needs, my strategy is instead to try and fuse the considerations on material, form and structure. Thus striving for a synergy of space, construction, and material leading to the proposal for a final design for the Millennium Triclinium.

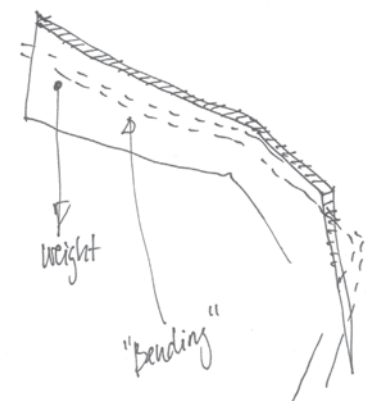
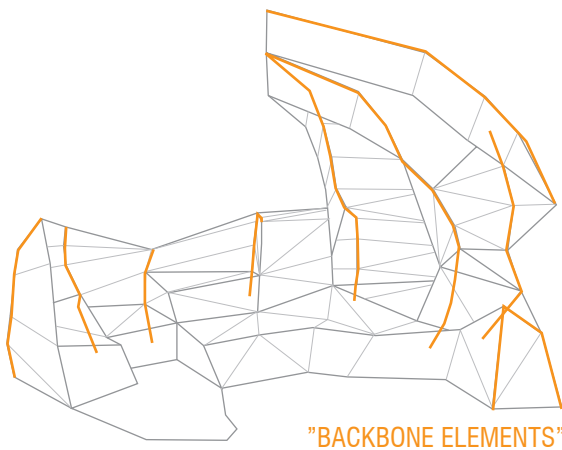
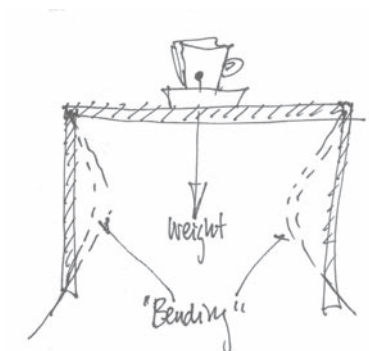
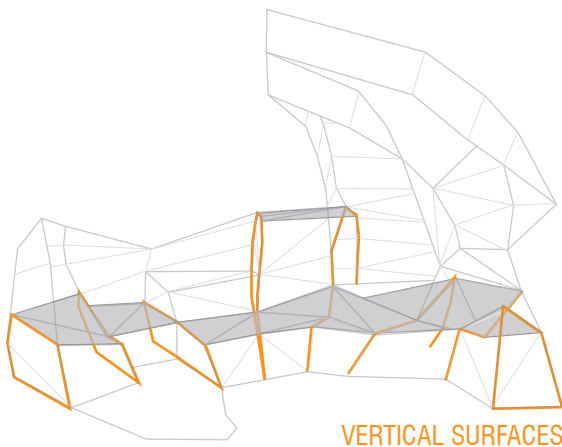
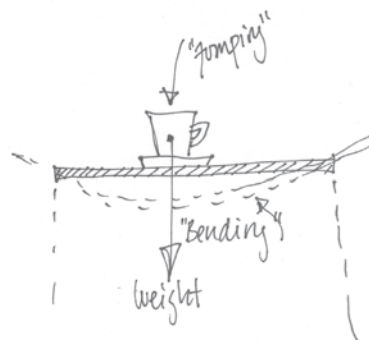
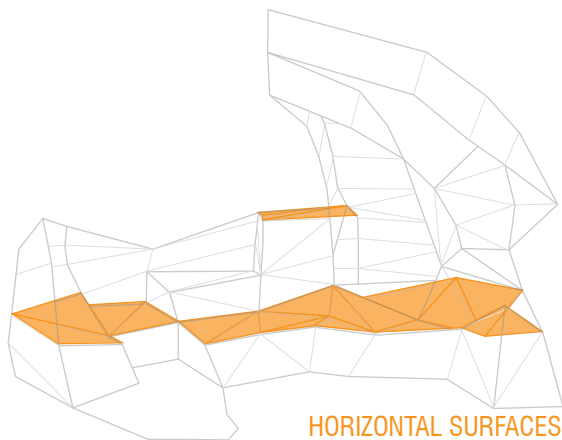


Fig. 9.9

Horizontal surfaces carrying external loads

Beside the self weight, the marked horizontal surfaces are areas possibly disposed to heavy external loads by means of china or seated persons. Those surfaces should therefore partly be able to carry the weight of these loads, but furthermore resist bending when exposed to extra weight, as to prevent the china from "jumping" or falling of the surface.

Fig. 9.10

Vertical surfaces transmitting forces of loads

Relative to the above load case, the marked vertical surfaces are structural elements which should be able to partly carry the load of the horizontal surfaces, but as well potentially transmit the forces from the horizontal surface into the ground.

Fig. 9.11

"Backbone" elements of desired stiffness

Ten "backbone" elements were identified as being vital for maintaining the overall shape, relative to bending for instance in the cantilevered parts. Those elements as means to obtain stiffness as such become very important in the further development of a structural principle.

Structural analysis

If we choose to look at the proposed structure or shape by means of a more diagrammatic approach, three cases can be outlined, describing the previous two main challenges of the construction. (see figure 9.9-9.11)

The first case in figure 9.9 is the outlining of the horizontal and diagonal surfaces exposed to external loads of chinaware/ objects and persons during exhibitions and food events. Here the ability of the surface to carry the weight of the objects without breaking or bending should be provided. As the loads on these vertical and diagonal surfaces are mainly burdening the structure in a vertical direction, the tensional demands toward the internal strength in the specific material are very important. As well as the ability to create a rather "hard" surface is important to prevent the different china objects from "jumping" around the structure when exposed to extra weights.

The second case in figure 9.10 is in relation to the first case scenario, the vertical surfaces actually carrying or obtaining the weight of the horizontal surfaces. For instance if the felt is stretched across the structure, then the parts supporting the felt are the structural elements, which should be able to transmit the forces occurring directly to the ground.

The third case in figure 9.11 relates more directly to the challenge of maintaining the stiffness in the outer structure, and thereby preventing the structure and especially the cantilevered parts from deformation or bending. In relation to a series of characteristic "backbones" of the outer shell could intuitively be identified as important elements in maintaining the overall expression.

Having outlined these three cases as the main goals of the construction principle an initiate evaluation of pros and cons towards different structural solutions were carried out. Seeking in relation hereto to determine which structural system was perhaps best applied the idea of the design proposal to achieve the desired strengths.

STRUCTURAL PRINCIPLES . PROS AND CONS

Fig. 9.12 "SHELL" . High level of stiffness

By either folding the structure into a shape supporting itself in three directions or processing for instance textile into a stiff surface, the structural principle of a shell is achieved. This gives the advantage of a highly stable structure being able not only to maintain the initiate shape but also carry rather high external loads relative to the overall self weight. The stiffness of the structure, however, limits the ability to dismantle the structure into minor, more flexible parts during transportation and demands a rather large transportation volume. Furthermore the soft and dense quality of the felt is lost when turning the structure into a stiff shell.

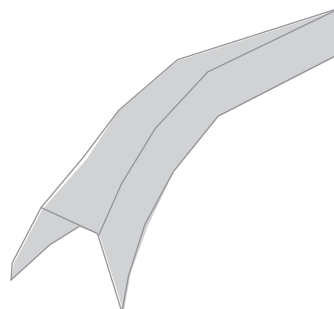


Fig. 9.13 "PLATE" . Structural "back"

By utilising and accentuating the division of exterior and interior, an outer stiff shell formed by various plate elements can be developed to carry the more soft structure of the interior. However, the principle of stiff plate elements demands to some extent an additional structure is carrying the plates, or an assembly solution making each of the plates work as shells. In both cases, the amount of single parts during assembly as well as the volume for transportation should be carefully considered.

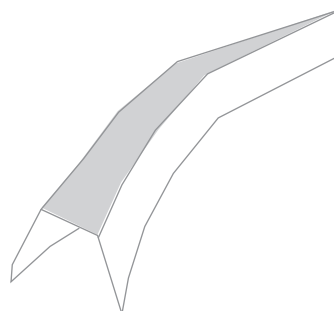


Fig. 9.14 "SHEAR WALL" . Structural "ribs"

As with the principle of the plates to create a structural "back", the utilisation of shear walls as structural "ribs" can be used to carry a softer structure in-between. However as with the plate solution an additional solution is demanded partly to obtain stiffness in the horizontal direction. But perhaps a combination of respectively the plate and shear wall solution could be considered?

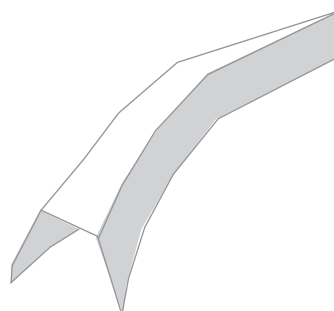
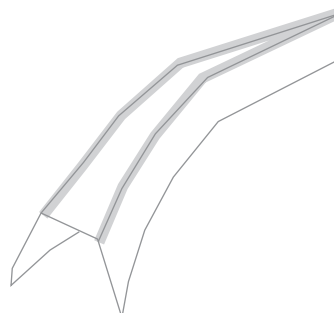


Fig. 9.15 "TRUSS" . Light structure

A fourth opportunity relative to the previous solutions of the shell, plate and shear wall, is the principle of the truss structure. A principle creating a three-dimensional system carrying the softer textile interior. However, this solution demands an additional solution creating hard surfaces carrying the china, to prevent it from jumping up and down, and should be combined with for instance the plate solution.



ASSEMBLY + MOBILITY + FELT?

As seen from the pros and cons of the evaluation of the different structural principles, none of the solutions directly fits the initiate considerations on the desired spatial and textural qualities of the Millennium Triclinium.

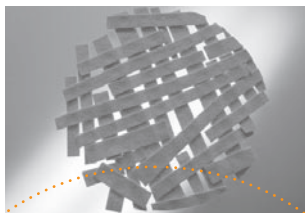
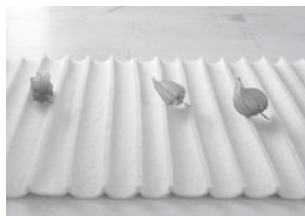
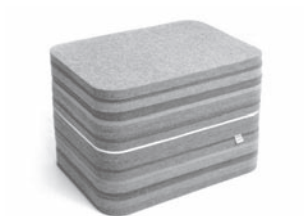
The proposal of the "*shell*" had an immediate quality in creating stiffness and maintaining the shape, simultaneously as being able to carry rather heavy loads. The shell could furthermore be developed by use of felt carpets and means of a surface treatment. However, the stiff appearance obtained with this treatment, and the large volume created during transportation made the shell solution loose all of its initiate structural advantages. The solution of the "*plate*" had as well as the solution of the "*shear wall*" great advantages in the ability to create stiffness in parts of the structure, simultaneously allowing for a softer felt structure in-between. As with the shell solution, limitations however prevailed.

In case of both the plate and the shear wall solution, it was the dependency of an additional structure either carrying the plates, or creating horizontal stiffness with the shear walls which put a limited to the real advantage of the two principles. The principle of the "*truss*" system seemed to be the best structural and spatial solution, providing both for a rather stiff structure and a soft interior. However a clear functional problem prevailed, - the interior became too soft, with no hard surfaces to carry the china and prevent it from jumping up and down, when persons were seated in the structure.

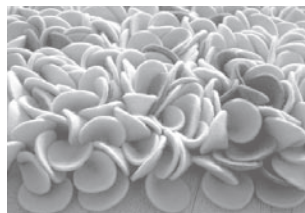
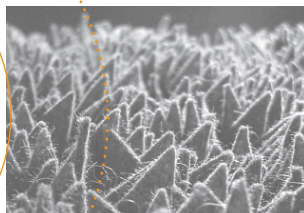
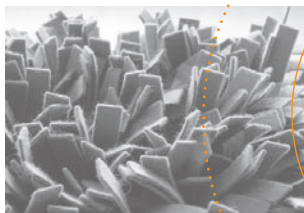
Therefore a solution utilizing one or more of the structural principles possibly had to be developed.

However, the strict demands and limitations of respectively assembly and mobility still prevailed, and the need for a solution being as small as possible during transportation and as large as possible during utilisation, simultaneously allowing for the felt interior. Those considerations initiatory led me partly to a reference study on contemporary projects utilising felt, but also to speculations on different ways of utilizing the felt relative to creating a stiff and soft structure applicable both during assembly and transportation. The result of both these investigations can be seen in the following pages (see pages 224-227).

In relation hereto, further considerations on the means of utilising felt in assembly principles as well as for optimisation during transportation, led me to the principles of deployable structures (see page 229).

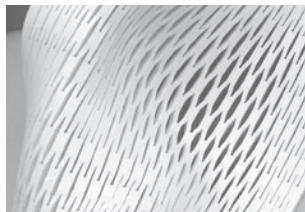
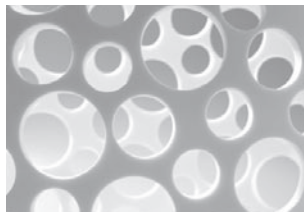
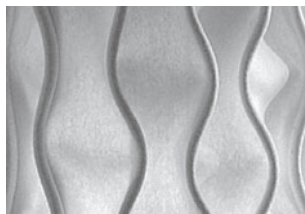


INTEGRATED LIGHT

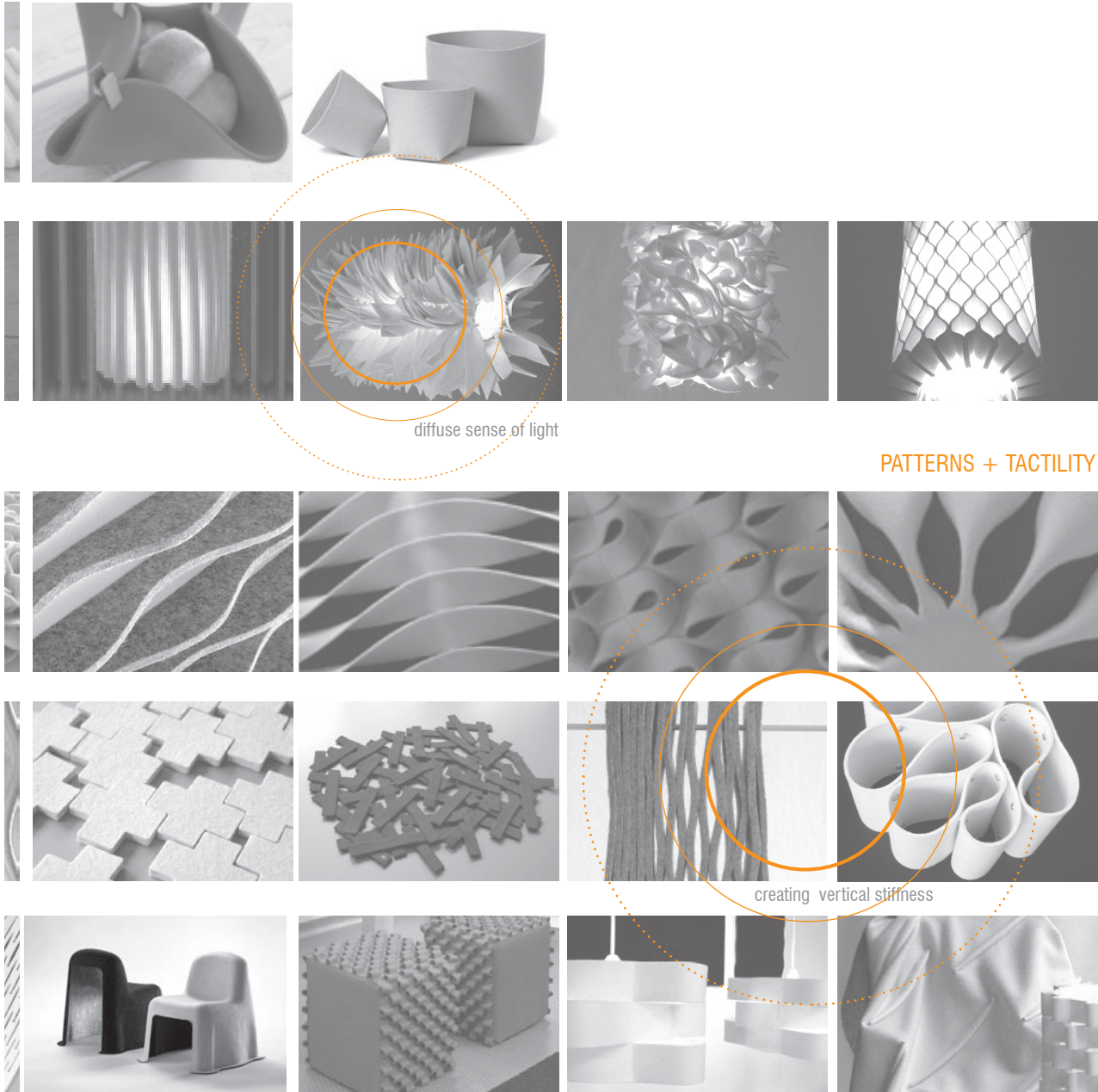


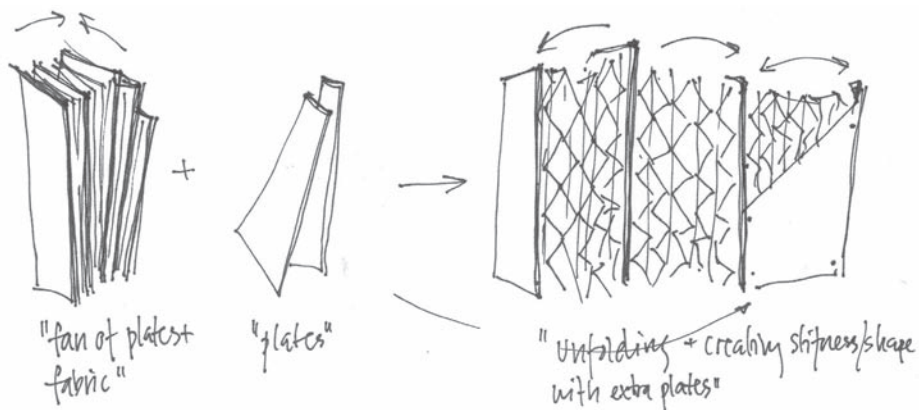
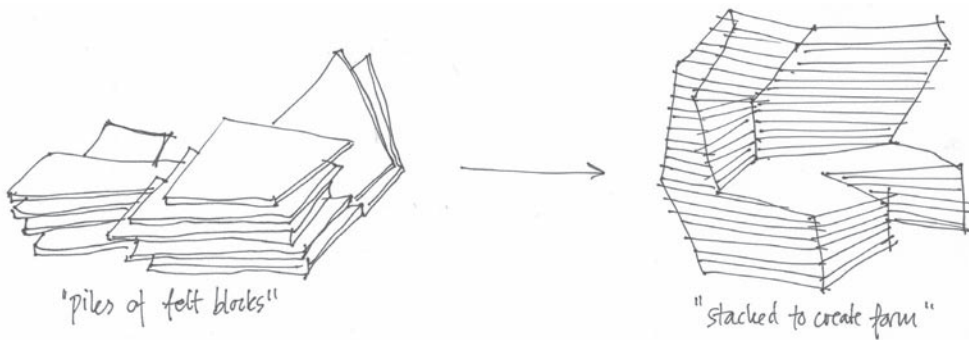
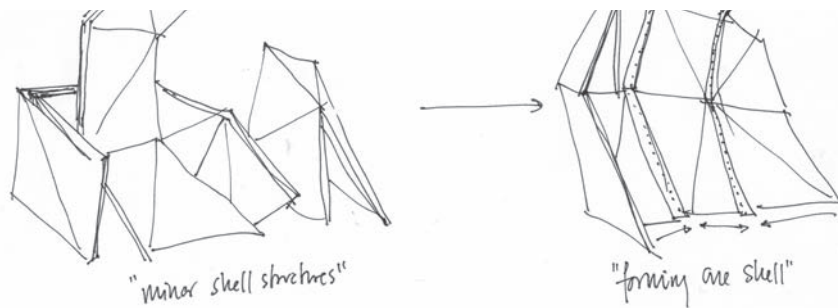
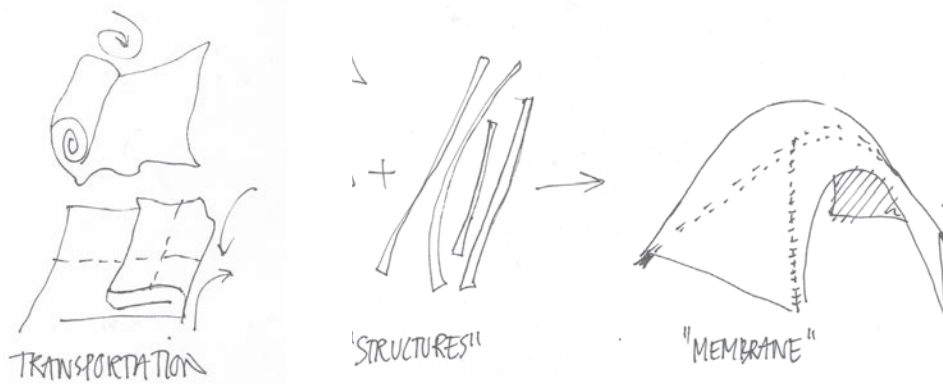
creating three-dimensional space

STRUCTURES + PATTERNS



FELT DESIGN . MATERIAL INSPIRATIONS





ASSEMBLY + MOBILITY . FELT CONSIDERATIONS

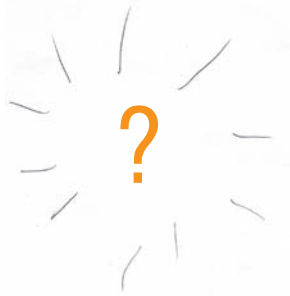


Fig. 9.16

Membrane + Truss structure

With the principle of the Truss system and an outer skin or membrane, a rather light and easy dismantle structure can be achieved. However the spatial qualities of the Millennium Triclinium is radically changed with this principle perhaps rather pointing towards a more organic shape than the hard shell of the design concept. Furthermore the stiffness of the membrane is too poor to prevent the china from "jumping" when adding external loads to the surfaces.



Fig. 9.17

Shell structure

By either folding the structure into a shape supporting itself in three directions or processing the textile into a stiffer texture, the structural principle of a shell is achieved. This gives the advantage of highly stable structure being able to not only maintain the initiate shape but also carry rather high loads relative to the overall self weight. The stiffness of the structure, however, limits the ability to dismantle the structure into minor, more flexible parts during transportation whereas the "compact" volume becomes quite large.



Fig. 9.18

Staked structure

By simply cutting felt plates into different sizes and stacking them, a strong structure can be developed to carry the heavy weight of china and diners.

Furthermore this principle allows for a great deal of the desired spatial qualities, conceptual expressions as well as tactile demands. However the structure perhaps becomes too dense and voluminous to also fulfil the wish for an easy assembly?



Fig. 9.19

Deployable structure

Relative to the idea on the staked structure, the idea on the deployable structure takes its point of departure in the principle of the "fan" or accordion fold utilizing felt in-between plates or shear walls to create a structure able to expand during assembly. This principle allows for the structure to "compress" into a rather slim volume only measuring the total sum of the felt and plate thicknesses. Simultaneously as utilised allowing for a much larger volume.

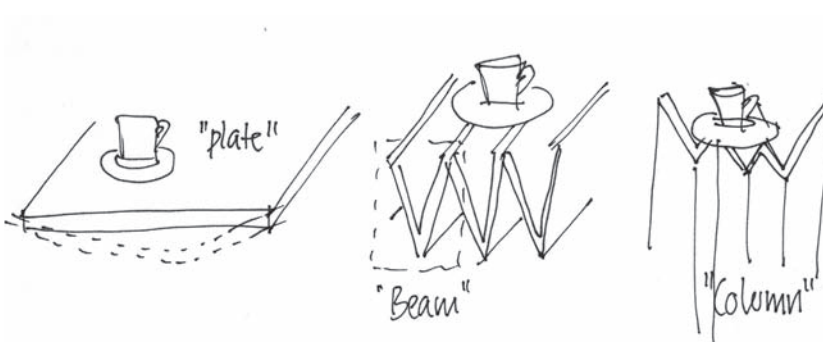
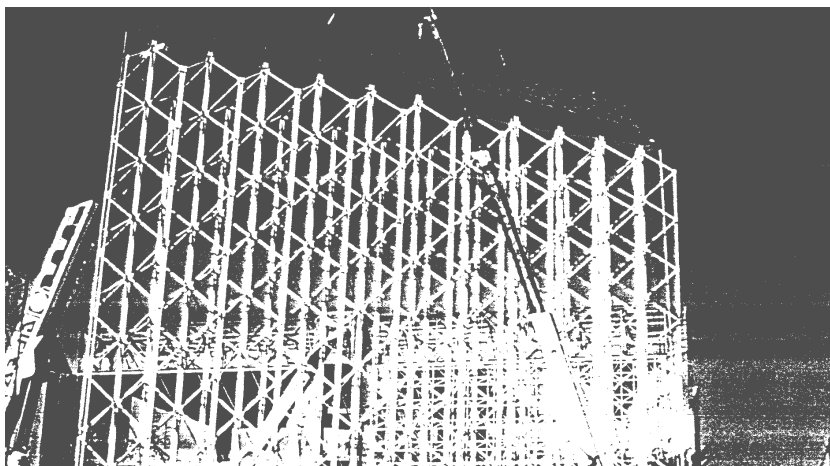
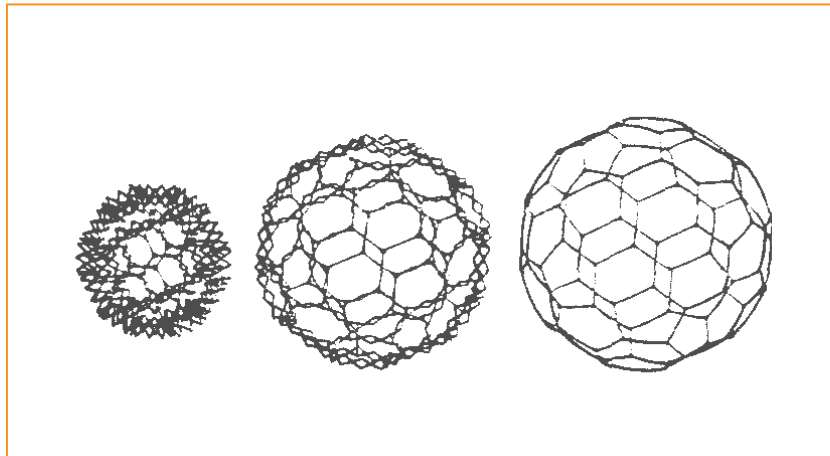


Fig. 9.20

Geodesic sphere

Deployable geodesic sphere developed by sculptor and engineer Chuch Hobermann. Here the pantograph mechanism operates in three dimensions, folding two scissor elements, each with four bars into rigid structure. (Robbin 1996:44)

Deployable structures are characterized by their technical ability to fold or “compress” completely during transportation, and then deploy during assembly in almost any given site. (Robbin 1996:38)

The functional need for a rather compact structure doing transportation and a large volume during utilization as with the case of the Millennium Triclinium can as such be achieved with the ability of a deployable principle.

Within architecture and engineering history shows different examples of these unfolding structures for instance by means of “scissor mechanisms” or elongation principles creating structures which are able to explode themselves into large volumes (often ten or more times their length) in a very limited amount of time. Due to joined and hinged configuration of the different elements strength is often obtained both vertically and horizontally, thus using the very light structural elements to form an overall system supporting and strengthening itself.

Fig. 9.21

Venezuelan Pavilion, 1992

The Venezuelan Pavilion made for the exposition in Seville 1992 by Waclaw Zalewski and C. Hernandez Merchan utilizes an accordion truss structure to erect a large theatre and exhibition area in less than one day. (Robbin 1996:52)

This is for instance seen with the *deployable geodesic sphere* developed by sculptor and engineer Chuch Hobermann. Here the pantograph mechanism and the scissor elements operate in three dimensions to unfold a smooth and rigid sphere (see figure 9.20). (Robbin 1996:44) Another fascinating example is the semi-permanent structure; *the Venezuelan Pavilion*, built for the Exposition in Seville in 1992. Here Waclaw Zalewski of MIT and his former student C.Hernandez Merchan made a proposal for an aluminium truss structure able to compress and being packed in two containers (3 by 2.8 by 18 meters), and still unfold to a pavilion of 18 by 22 metres each in less than a day. The principle used for the structural system was an accordion-fold mechanism in which a double-layer plane truss structure was pleated and hinged (see figure 9.21).

The utilisation of especially the accordion fold provides the possibility of having a very slim and compressed plate-like structure deploy into a much wider construction of great strength across the folded axes. This can be illustrated for instance with the making of an accordion fold with a piece of paper.

Fig. 9.22

Accordion fold

In its natural state a piece of paper works as a plate, however, by folding the paper into an accordion fold the paper instead resembles a structure of joined beams or columns. Thus, achieving much greater stiffness and ability to carry heavy loads.

In its natural state a piece of paper works as a thin plate initiatory being very poor at resisting bending from external forces. However, by folding the paper into an accordion fold, the paper instead resembles a structure of joined beams. The stiffness and ability to carry external loads is thereby heavily enlarged due to the greater moment of resistance occurring with the increased “height” of the structure (see figure 9.22).

DEPLOYABLE STRUCTURE . THE FUNCTION OF ORNAMENT

Inspired by the deployable principles and their ability to create highly compressed structures, as well as the abilities of the accordion fold to likewise create great stiffness in thin plate-like materials, considerations regarding the final design proposal began to develop.

Throughout the previous pages the structural analysis has already divided the shape into parts of for instance backbone elements and elements able to carry external loads both horizontally and vertically (see figure 9.9-9.11, p. 220). Furthermore structural considerations towards the utilization of respectively plates, shear walls, and shells as means to form the constructional system had also been conducted. Summarizing those initiate structural considerations with the principles of the deployable structure the idea of "the deployable fan-structure" immediately formed.

Deployable fanstructure of shear walls

The idea of the deployable fan-structure takes its point of departure in the previous definition of ten backbone elements and their characterising shapes for the overall expression of the design concept (see figure 9.11, p.220). By transforming each of those elements into shear wall elements of plywood and joining those together by an in-between felt structure the deployable structure occur.

Furthermore the helix shape had from the beginning been very strongly defined by the cantilevered parts. By joining those together with a hinge, the deployable mechanism of the entire structure is thus further emphasised. Finally leading to the proposal that the entire setting by very few means can be compressed into a very slim volume able to pack and transport in one box (see figure 9.23).

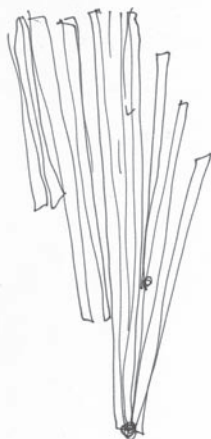
Accordion folded felt structure

The in-between felt structures of the "deployable fan-structure" work as the principle of the accordion folded paper and is thereby despite its natural appearance as a rather thin fabric capable of carrying heavy external loads in both horizontal and vertical directions without any greater risks of bending deformations, when aligned with the form of the shear walls. Besides being able of carrying grand external loads the perforate pattern occurring with the accordion folding of the felt plates further adds a strong sense of shadow and light, possibly penetrating the entire expression of the structure when illuminated from either outside or inside (see figure 9.24). Thereby the accordion folding not only serves a structural purpose, but further comes to form a highly sensuous and tactile element, emphasising the diffuse glimpses of the inner soft landscape of china in the setting by means

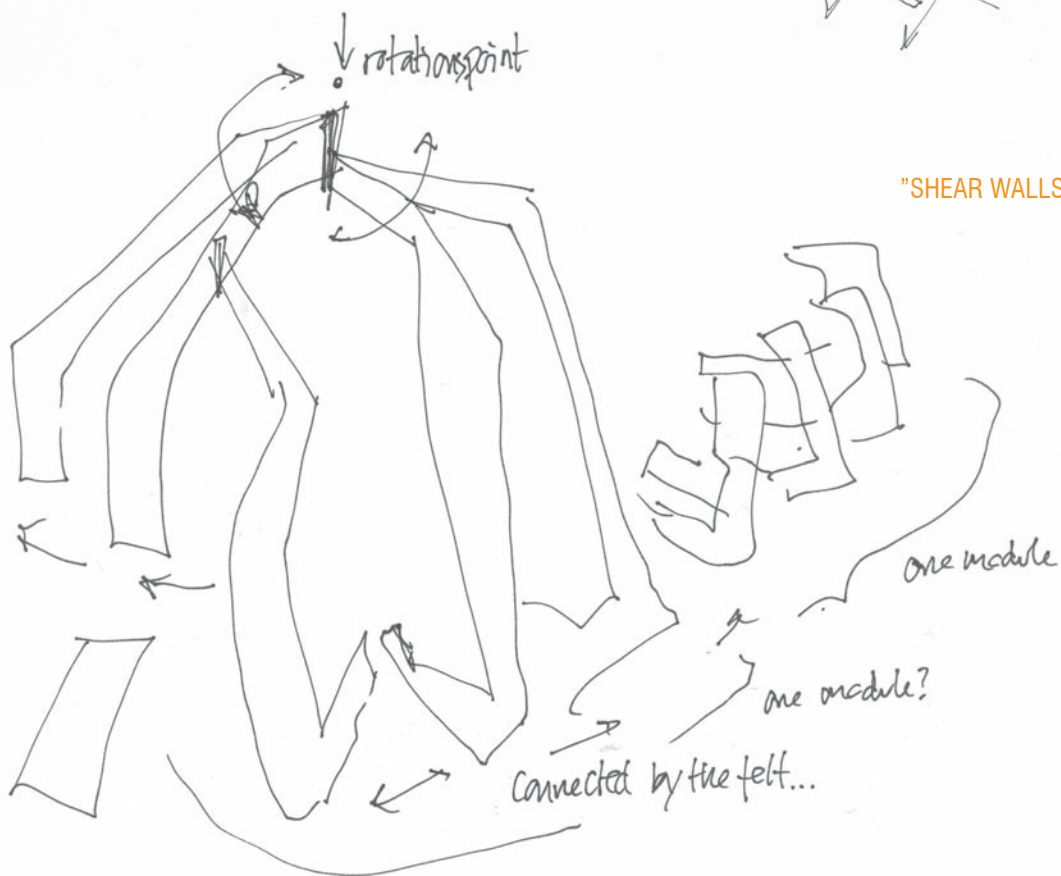
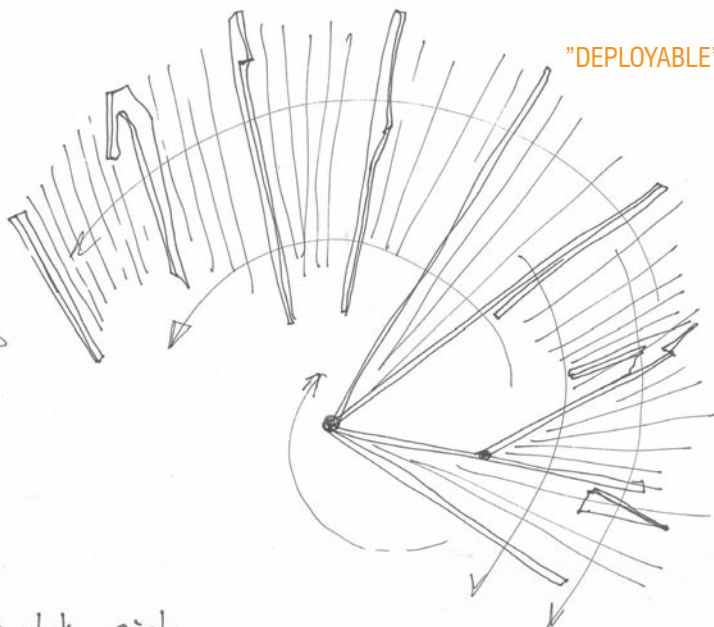
Fig. 9.23

Deployable "fan-structure"
*In terms of the Millennium
Triclinium the shear walls
together with the in-between felt,
forms a deployable structure
which during assembly is
expanded in a circular fanlike-
movement, rotating around the
top-hinge in the cantilevered
part.*

"COMPRESSED"



"DEPLOYABLE"



of the penetrated pattern occurring. Finally the utilization of the felt in an accordion folding further provides the possibility of creating almost any shape. This simply by cutting the felt plates in different sizes creating an almost sculptural volume tailored to the different desires of each part. Thereby the initiate considerations on the interior landscape and the development of smaller niches or cavities to create intimate spaces for reclining or displaying china within the interior to a much greater extend becomes possible.

With the construction of the deployable fan structure consisting of respectively the ten shear wall elements and the inbetween accordion folded felt plates, the ability to form a rigid structure maintaining its shape in the horizontal direction, however, is not fully obtained. As such nothing in the current state of the proposal assures the final position of the structure, but it is capable of being folded back and forward to any imaginable position around the point of rotation.

Surface cladding

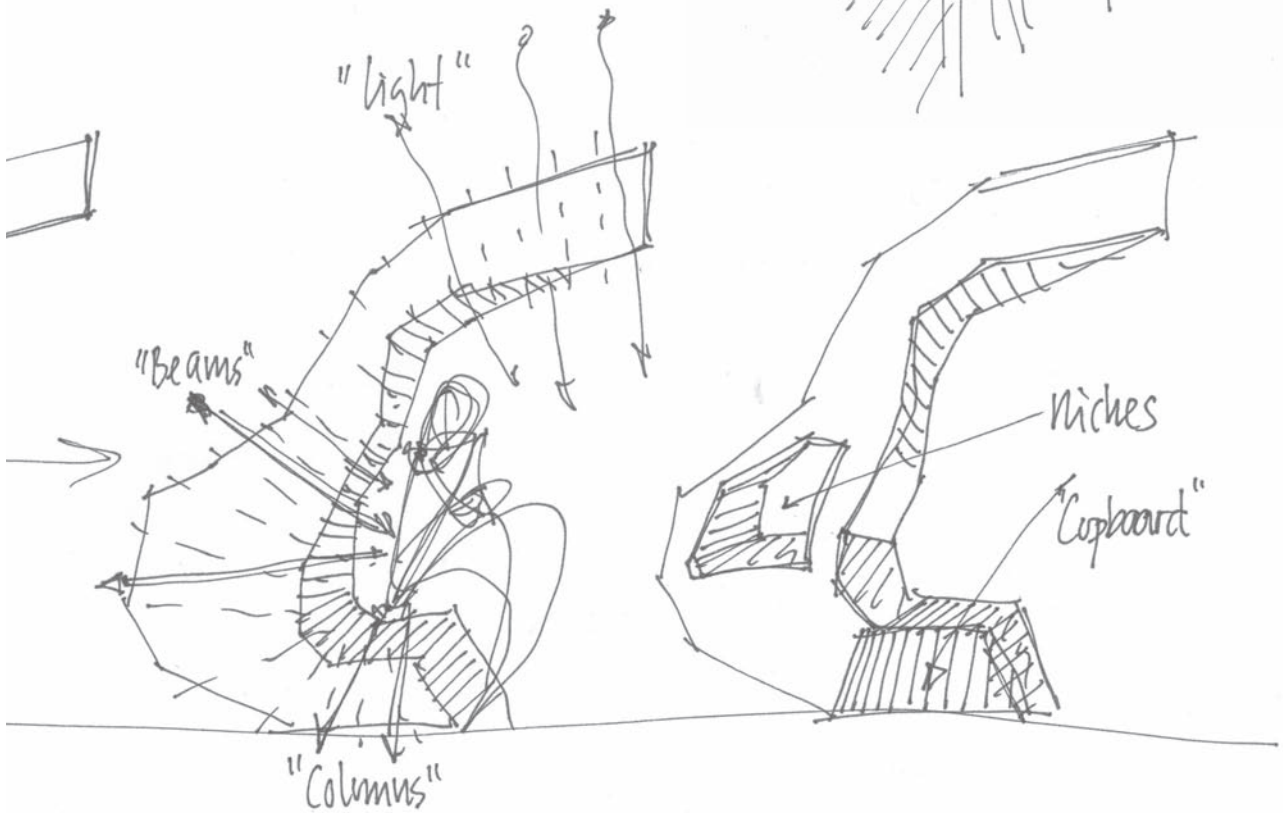
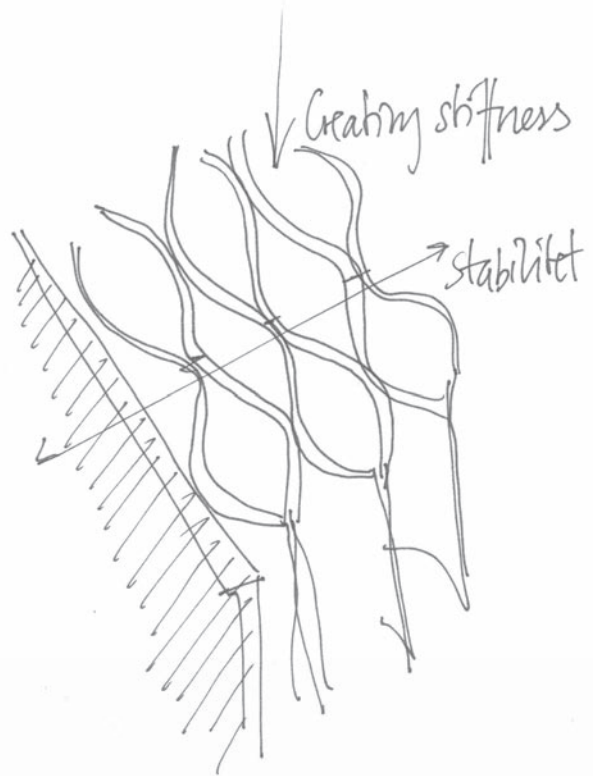
An additional solution is therefore needed fulfilling the means of obtaining stiffness in the horizontal direction of the entire structure. My proposal is to do this by means of very slim aluminium plates being attached to the shear walls in the direction of the helix movement. Thereby creating an overall rigid structure, as well as emphasising the appearance of a hard outer shell embracing the soft inner landscape (see figure 9.25). Furthermore by letting these plates fold together with the interior landscape, longitudinal bands of aluminium are created as well providing contrasting hard surfaces to the soft and dense comprehension of the felt and the displaying of the chinaware (see figure 9.26).

Fig. 9.24

Expandable felt structure
The felt structure works by the principle of the accordion folded paper and is thereby capable of carrying heavy external loads in both horizontal and vertical directions without any greater risks of bending deformations, when aligned with the form of the shear walls. Besides being able of carrying grand external loads the perforate pattern occurring with the accordion folding further adds a strong tactile sense of shadow and light when illuminated from either outside or inside.



creating stiffness and stability
 "ACCORDION FOLDED FELT"





interior view

exterior view

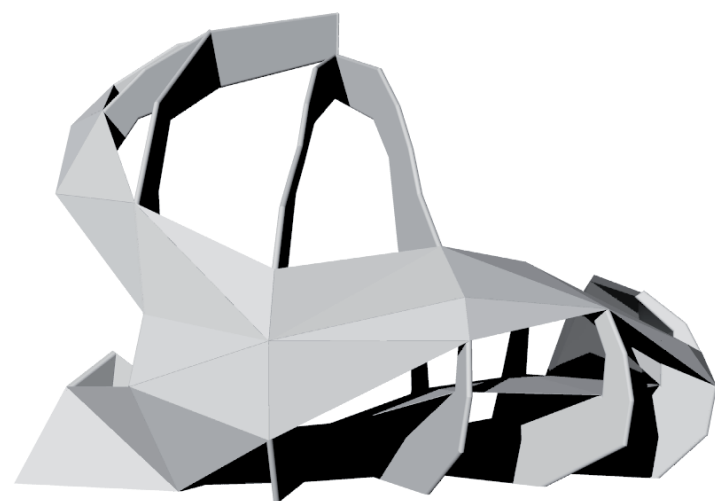


Fig. 9.26

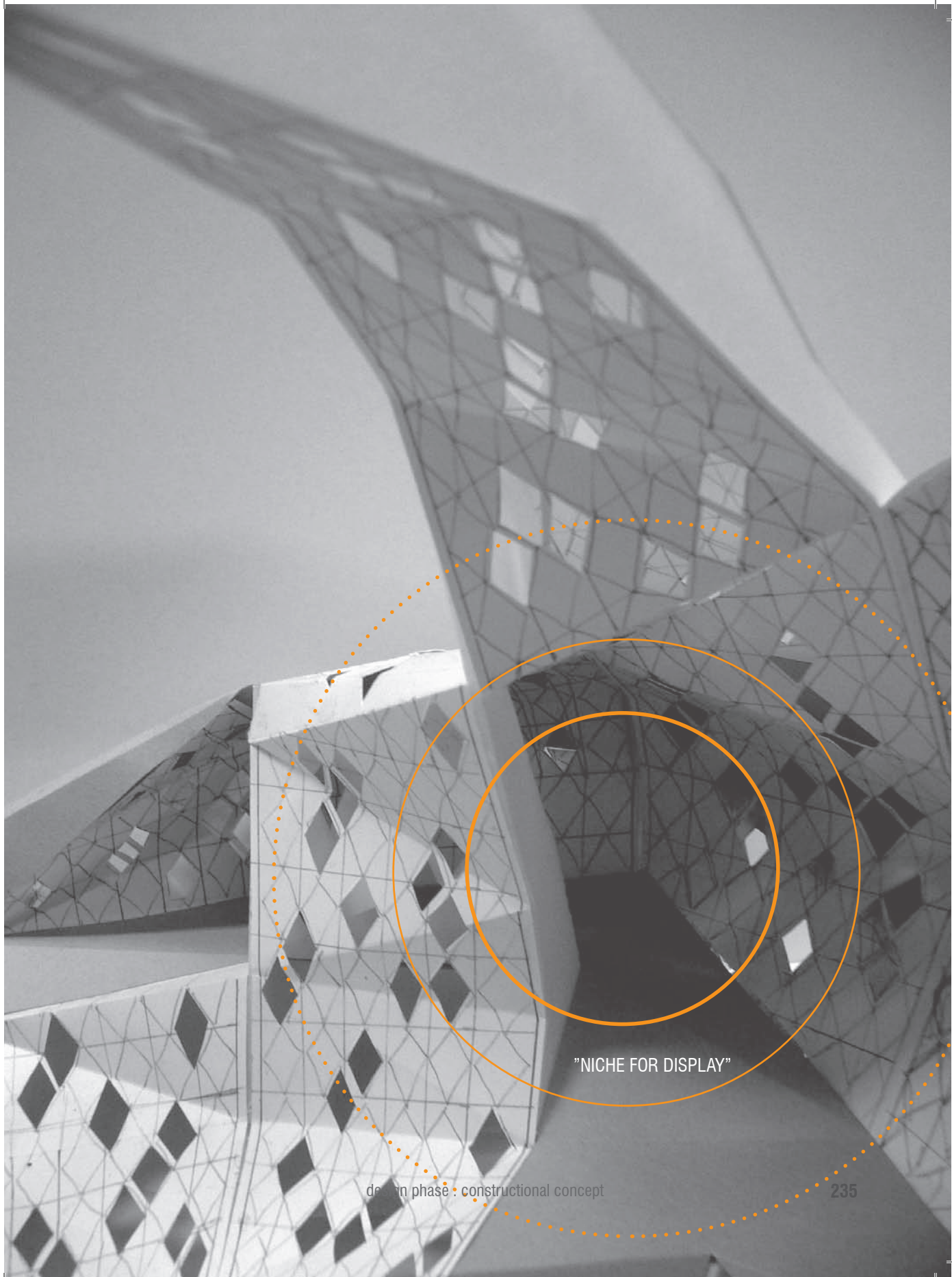
Embracing shell

With the attachment of aluminium plates to the shear walls of the fan-structure a rigid construction is achieved also in the horizontal direction. Furthermore the appearance of the aluminium plates emphasise the expression of a hard outer shell embracing the soft inner felt landscape.

Fig. 9.27

Interior path

By also letting the aluminium plates work as supporting elements on the inside of the setting, contrasting surface bands are created across the soft felt landscape, partly creating an interior path or movement emphasising narrative of the cavities and niches in the interior landscape for display of the china. Finally the benefit of using aluminium plates is that a great strength can be obtained in the surface of the plate by simply folding the outer edge on each side and using this for the attachment. Thereby being able to use a very thin and light-weight plate to obtain horizontal stability in the structure, as well as carry heavy loads in parts of the interior.



"NICHE FOR DISPLAY"

design phase : constructional concept

235

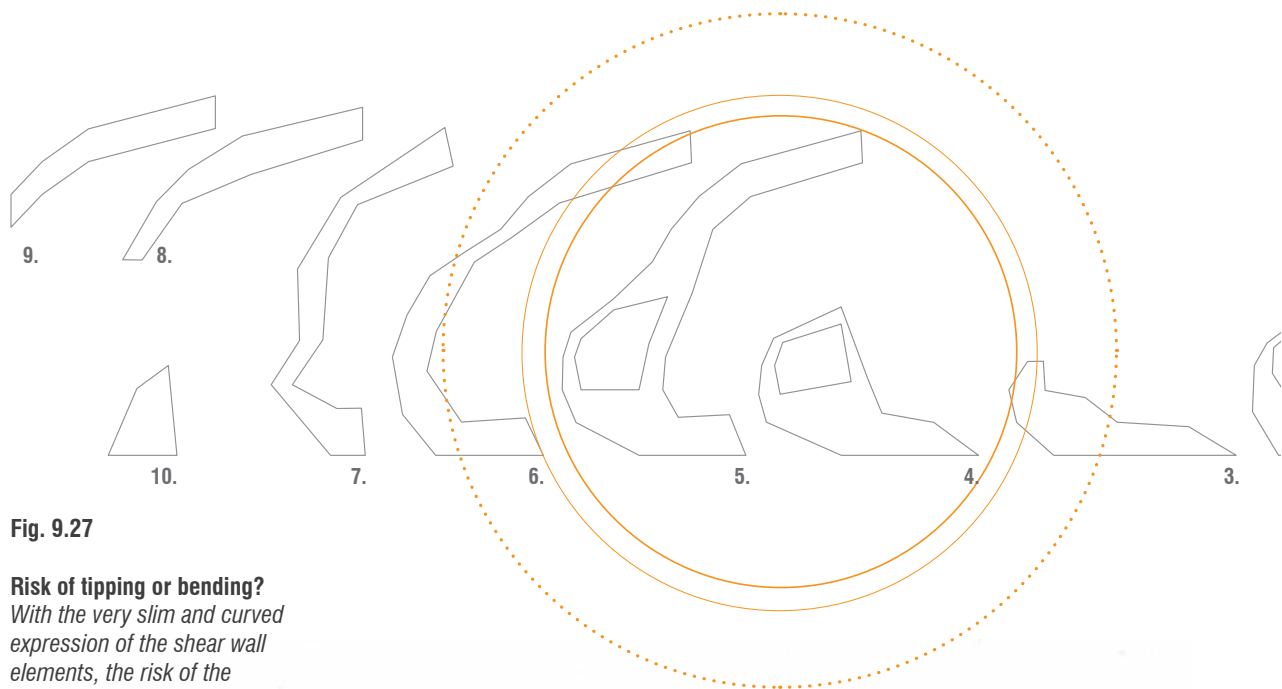
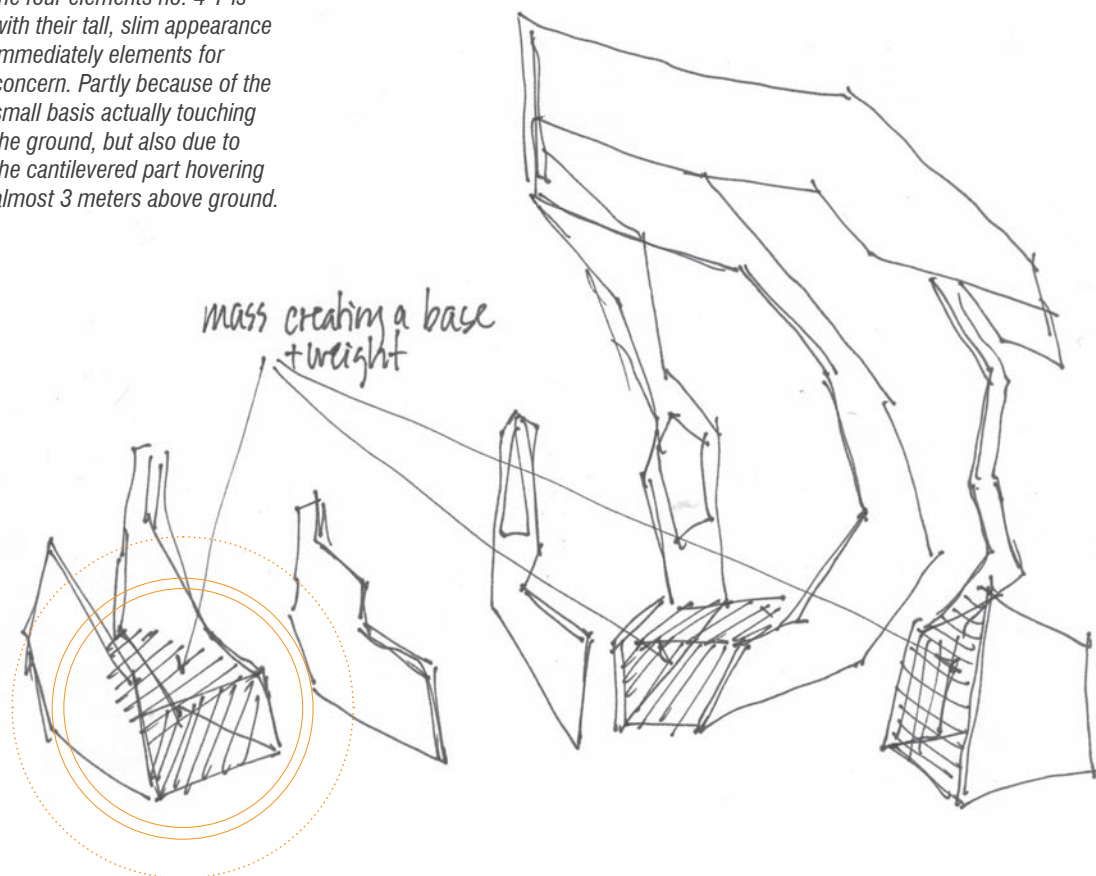


Fig. 9.27

Risk of tipping or bending?

With the very slim and curved expression of the shear wall elements, the risk of the entire structure to tip, bend or break increases. Especially the four elements no. 4-7 is with their tall, slim appearance immediately elements for concern. Partly because of the small basis actually touching the ground, but also due to the cantilevered part hovering almost 3 meters above ground.



DESIGN PROPOSAL . FORMING THE "FAN"

Relative to the statically problem of achieving stiffness in the horizontal direction an additional problem possibly occurs with achieving stability in the vertical direction, despite the supporting ability of the accordion folded felt. This is due to the very slim and tall structure of many of the shear walls, and the shaping of the overall structure to stand on its "tip-toes". With the very curved expression of the entire setting a minimum of the structure actually stands on the floor, and most of the mass and volume of the structure hereby instead hovers above ground. This causes the risk of parts of the structure bending or tipping backwards/ forwards. A proposal was therefore to prevent the structure from tipping backwards or forwards by adding supporting weights to the ground basis. - And doing so by creating three cupboards in the two ends, and the middle of the structure. Thereby the need for storage for chinaware, brochures, tools etc. as outlined with the room programme can be achieved, simultaneously as serving a more structural purpose seeking to create stability and basis for the more unstable parts of the structure. However, considerations on the shaping of each of the shear walls could further be a possibility in creating stability in the overall structure. Relative to this especially four shear walls are in great risk of tipping, bending or breaking merely by loads of self weight (see figure 9.27). Therefore more elaborate examinations on those specific elements relative to strength and shape have been conducted to assure the stability of the design proposal, and these can be read in Appendix A5.

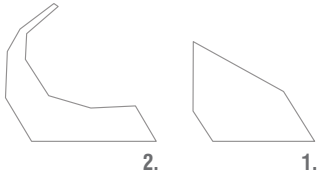
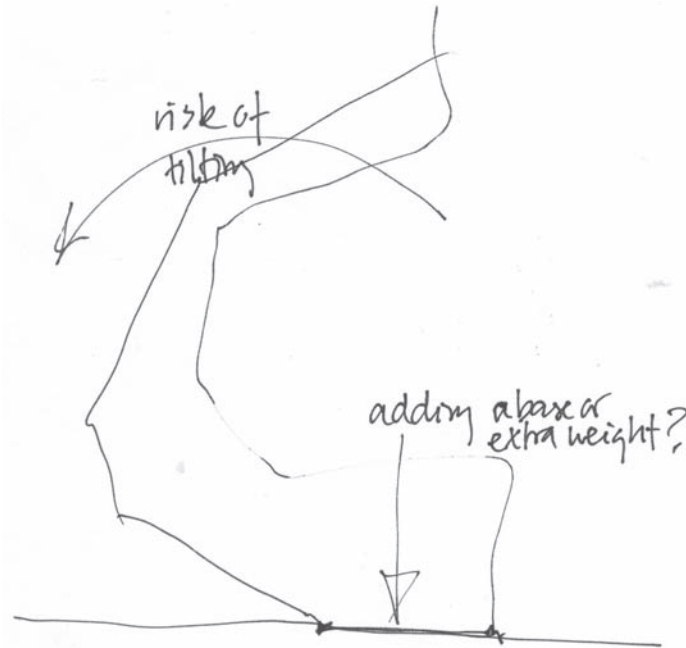


Fig. 9.28

Achieving stability?

Despite the attachment of the aluminium plates and the stability achieved with the accordion folded felt structure, the entire setting due to its very curved expression and slim shape of the shear walls risks tipping backwards/ forwards or simply bend/ break. However, the need for stability and weight keeping the structure "on ground" can be achieved by adding three heavy cupboard elements to the basis of the structure, thus creating a "foot" for some of the more unstable and very slim shear walls.



PRIMARY FURNITURE MODULE . **STRUCTURAL ELEMENTS**

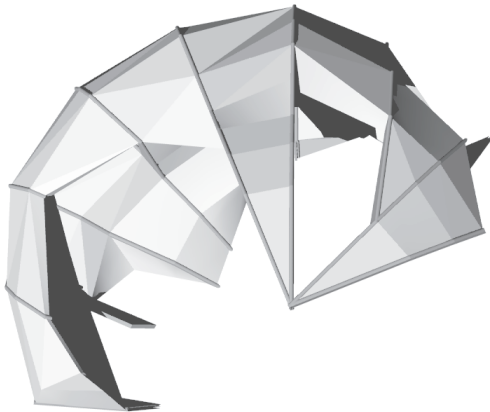
With the spatial and structural considerations of the above pages and the supporting calculations of the form analysis in Appendix A5, the construction and assembly of the Millennium Triclinium arrives at a proposal involving the following:

- A deployable fan-structure encompassing ten plywood shear walls attached both by a hinge in the cantilevered part, and by an accordion folded felt structure in-between each wall. This structure is deployed during assembly and fixed in its final shape by the attachment of slightly folded aluminium plates creating bands along the curved surface of the structure. Furthermore cupboards are fixed to the three parts of the structure to obtain stiffness and weight, preventing the structure from tipping. Finally, parts of the interior landscape are covered with a soft tufted felt carpet, forming the basis of the display of china as well as comforting seating areas during food events (see figure 9.29 + enclosed drawing folder). Four main parts thereby characterise the overall appearance of the Millennium Triclinium, and those are respectively; the shear walls, the accordion folded felt, the aluminium plates and finally a tufted felt carpet (see figure 9.30).

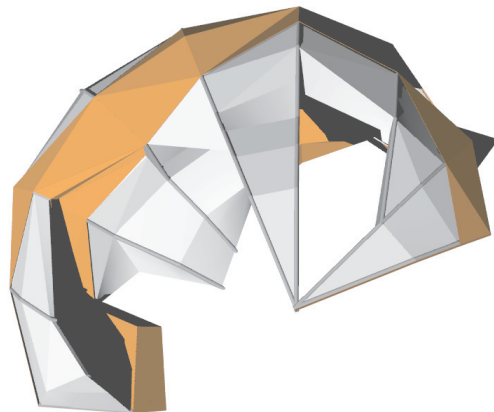
Fig. 9.29

Assembly

The assembly of the Millennium Triclinium consists of four steps, being first the unfolding of the fan-structure and the in-between layers of accordion folded felt. - Then creating stability by attaching the three cupboards and the aluminium bands, and finally attaching the tufted felt carpet for display of the china or comfort seating areas.



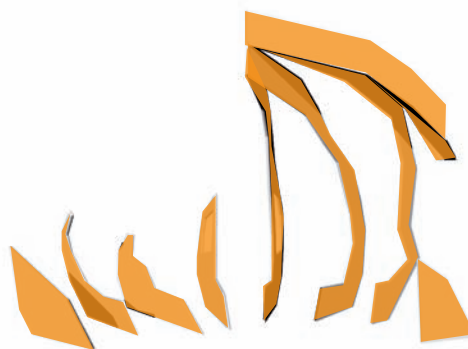
MAIN STRUCTURE
accordion folded felt + shear walls



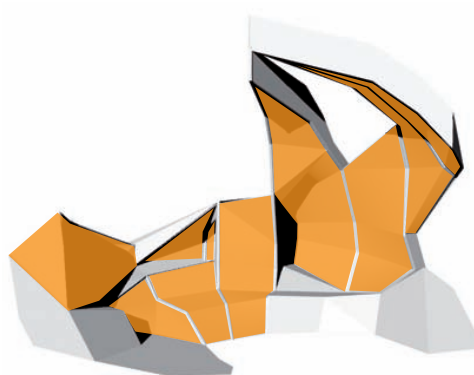
ADDITIONAL ELEMENTS
cupboards + aluminium plates

Fig. 9.30

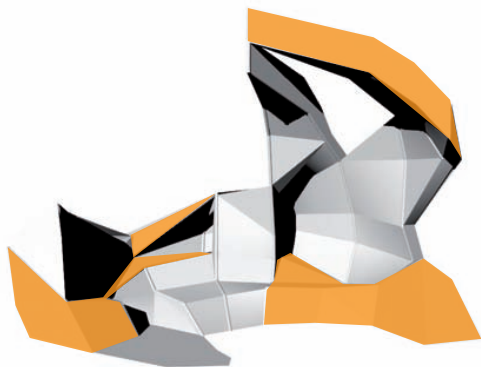
Structural appearance
Relative to the method of assembly developed for the Millennium Triclinium, the overall appearance of the setting is then characterised by the strong appearance of; the shear wall elements, the accordion folded felt, the supporting plates, and the tufted felt carpet.



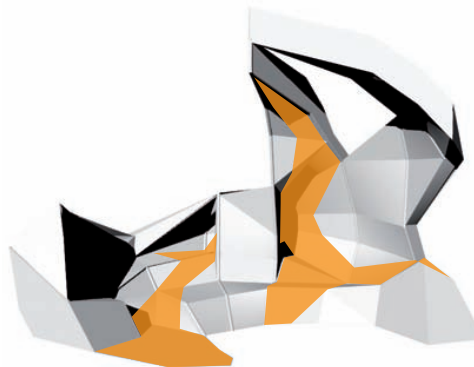
"SHEAR WALLS"



"ACCORDION FOLDED FELT"



"ALUMINIUM PLATES"



"FELT CARPET"

DETAILING OF COLOURS AND SURFACE TREATMENTS

With the previous pages elaborate considerations have been made on the structural and technical aspects concerning assembly and construction. Furthermore initiate considerations have been made on the spatial and tactile qualities on the appearance of the Millennium Triclinium, especially emphasising the architectural and sensuous values of the felt carpet and the development of an interior landscape for display of china or food performances. As part of those initiate considerations and especially the development of the fan-structure together with the accordion folded felt, several considerations were made on respectively the materials, colours and surface treatments in the combination of the different parts. Hence, suggestions on the joining of shear walls, accordion felt structure, aluminium plates, felt carpet, and chinaware.

The initiate idea on the narrative of the felt carpet and the chinaware together forming an interior landscape became the leading perspective in this examination on materials, colours and surface treatments for the overall setting. And as part of this perspective examinations were conducted on the tactile qualities of the tufted felt carpet together with the different aspects of chinaware, shear walls, plates, and accordion folded felt. Those examinations were primarily conducted by a series of full-scale hand sketches seeking "in section" to understand especially the movement and folding of the felt carpet around corners and angles of the structure, but also "in plan" to illustrate the joining of all the different materials. The results of these sketchings can be seen in the following pages.

However, in addition to the full-scale study on the joining of the different materials and texture, also considerations on the actual assembly details between the elements of shear walls, felt, carpet and aluminium plates were conducted. Relative hereto, especially the detail on the attachment of the cupboard became a very important element in the overall understanding of the joining of all the different parts. This because the cupboard in its attachment to the structure represents the joining to both shear walls, felt structure, felt carpet and aluminium plates. Hence, finding a sufficient solution for this specific assembly detail, partly led to the proposal for several of the other assembly details. Overall considerations on the assembly details on the cupboard can be found in the following pages, whereas the final proposal for assembly details on the cupboard, top-hinge, and joining of materials can be found in the enclosed drawing folder.



Fig. 9.31

Sense of texture

With the development of the initiate design proposal, the strong spatial and tactile qualities of the tufted felt carpet relative to the display of the hard, white chinaware and the creation of a sensuous interior landscape was emphasised. However, to fully understand the spatial and tactile value of the felt carpet relative to the use of the remaining materials and the china, full-scale studies have been conducted on the tufted felt carpet made by the company HAY. Here especially the sense of texture and movement in the tufted fibres of the felt became important for the final appearance of respectively the china and the other materials.

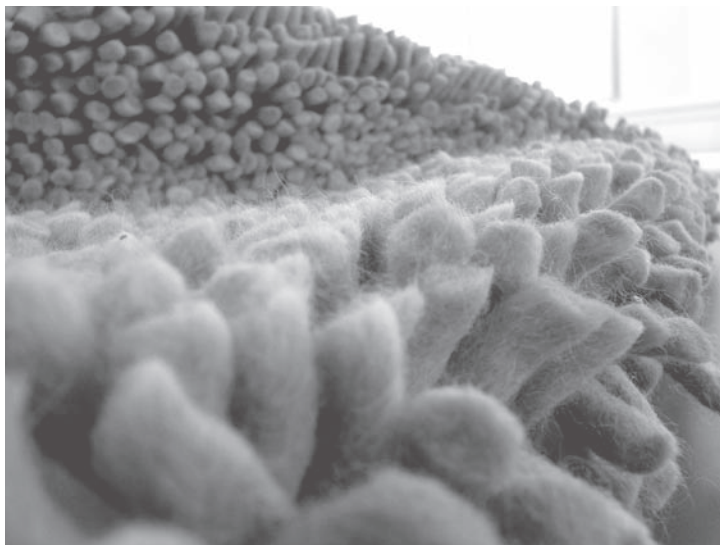
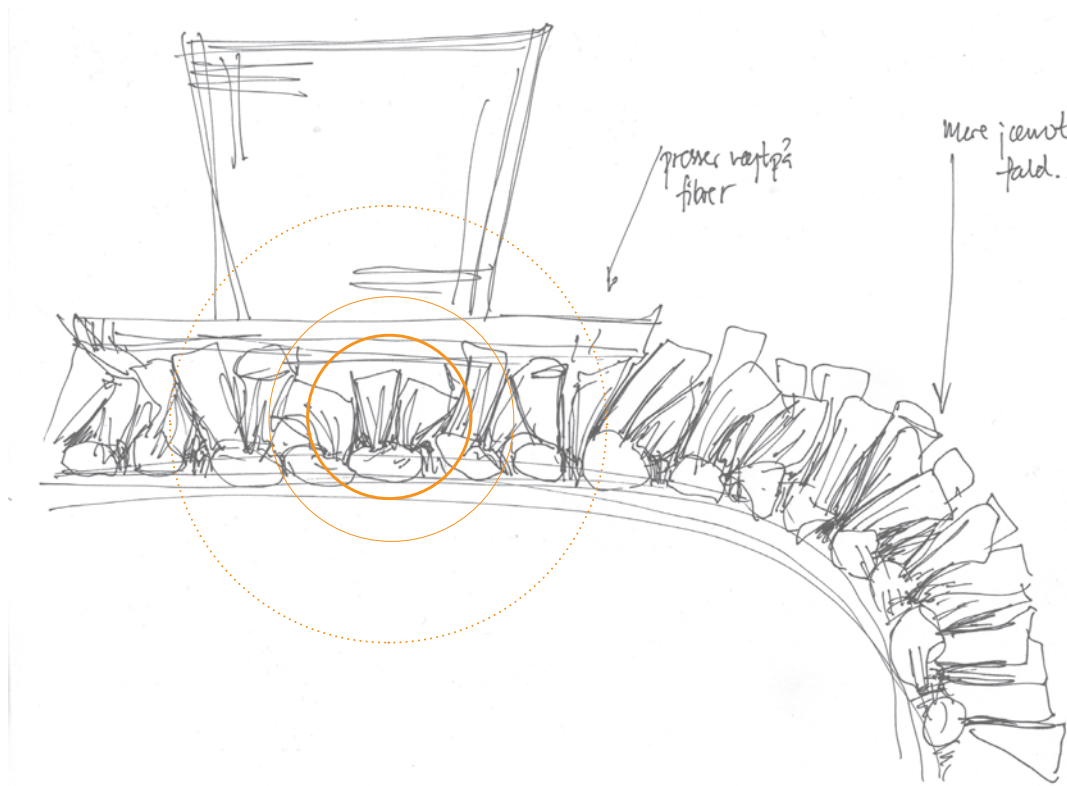


Fig. 9.32

The sense of the corner?
 With the sectional full-scale drawings of the tufted felt carpet it was revealed how especially the alternation in round or rectangular corners possibly occurring in the shape, makes the long fibres of the felt behave differently. With the soft rounded corners the quality of a dense and even distributed surface movement appears, revealing almost nothing of the “back” of the carpet, but instead adding a sensuous depth feeling to the surface appearance.

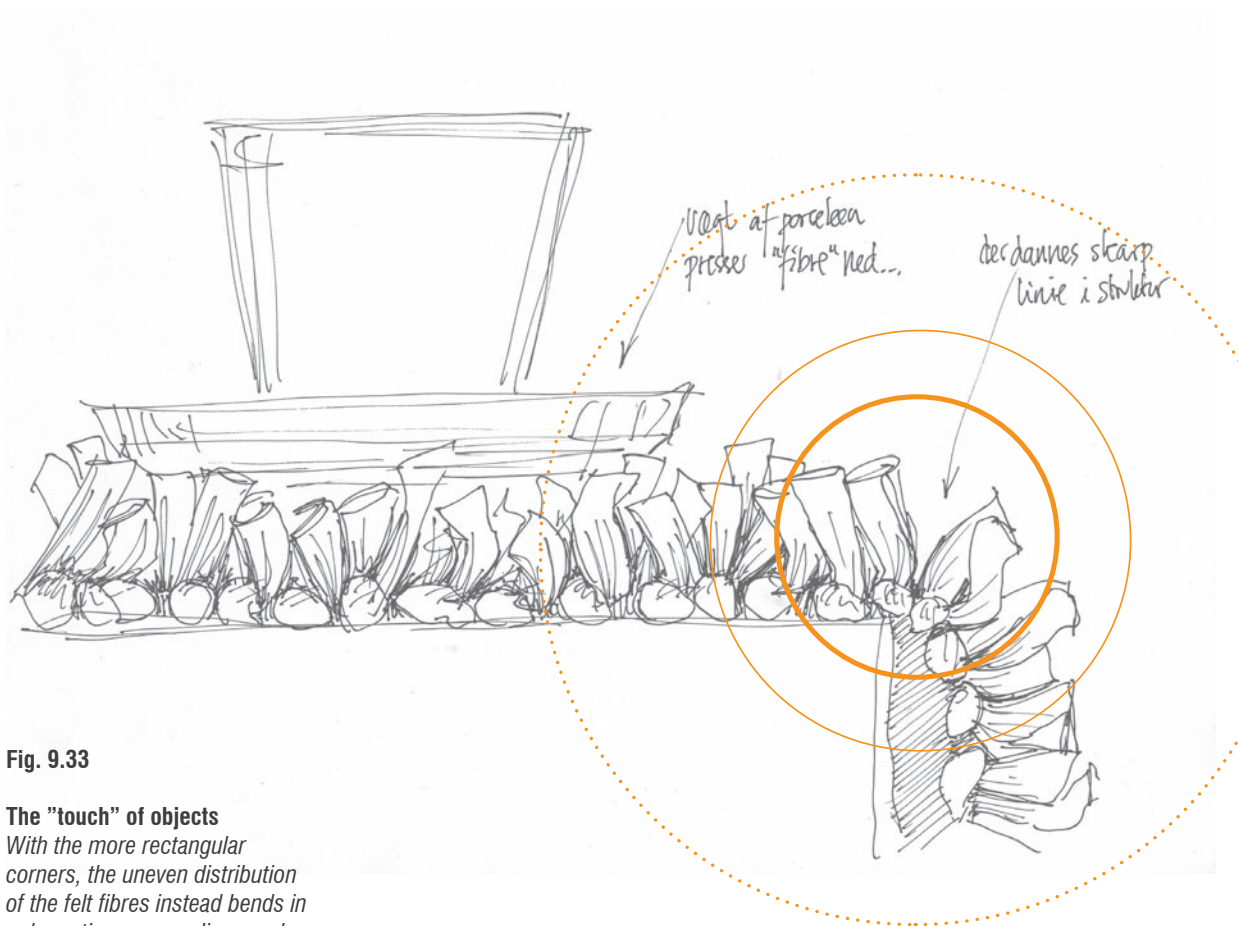


Fig. 9.33

The "touch" of objects

With the more rectangular corners, the uneven distribution of the felt fibres instead bends in a dramatic way revealing much of the "carpet back", but also creating the sense of long lines in the overall surface perhaps not so appealing as the more dense appearance. With the study of the straight surface it was, however, instead revealed how the light pressure of the china forcing some of the fibres to bend leaving almost a print or "touch" of the object on the surface, which was quite interesting together with the compression and bending in the remaining structure. This demanded a rather hard surface supporting the carpet from beneath, as for instance the use of aluminium plates or the stiffness created with the accordion folded felt structure.

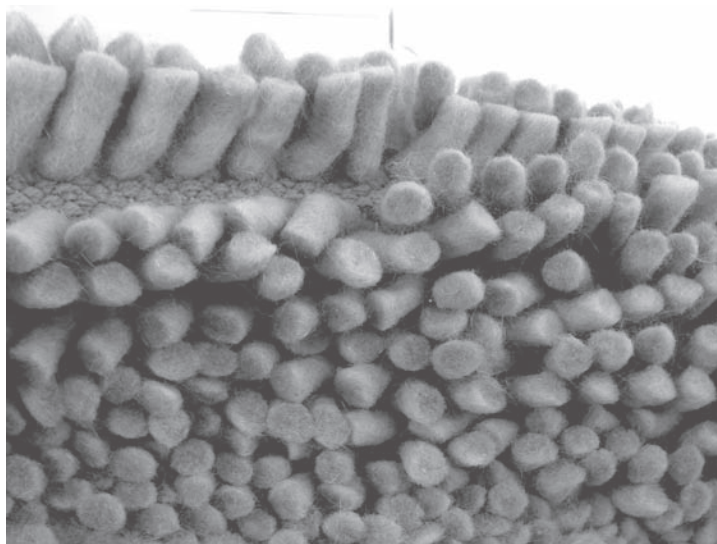
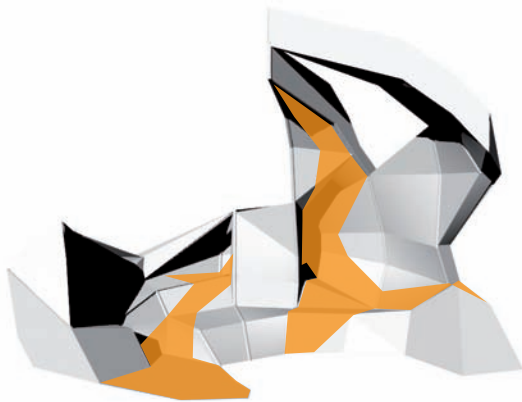


Fig. 9.34

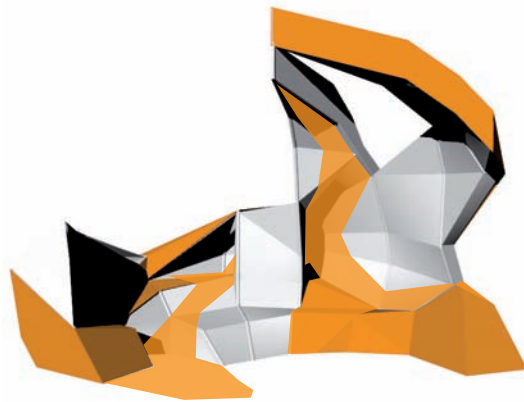
Surface treatments

Relative to the overall considerations on the carpet surface, more detailed investigations on the joining of the carpet with the accordion folded felt structure and the shear walls were conducted. Here a great challenge was to create a subtle background for the display of the china on the felt carpet, simultaneously as having the dominating pattern of the accordion fold and the lines of the shear walls. As part of this study, considerations on the contrasting use of colours were performed to determine how the setting could be both intriguing and creating attention from outside, as well as being subtle on the inside, allowing instead for the carpet and felt to draw attention?



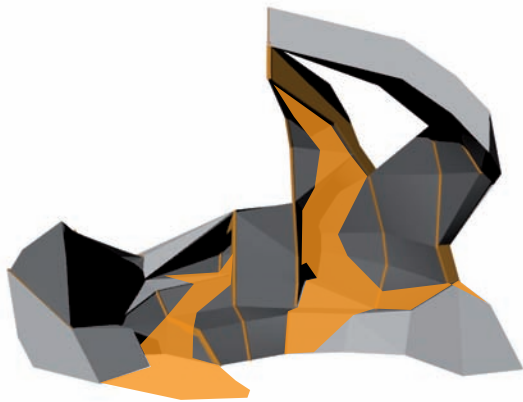
WHITE + ORANGE

One of the initiate ideas was to make the entire structure white – both plates, shear walls and felt structure. Then the orange felt carpet would create a colourful interior background to the also white china. However, considerations on the white delicate felt together with food servings and repeated use made the proposal seem less satisfying.



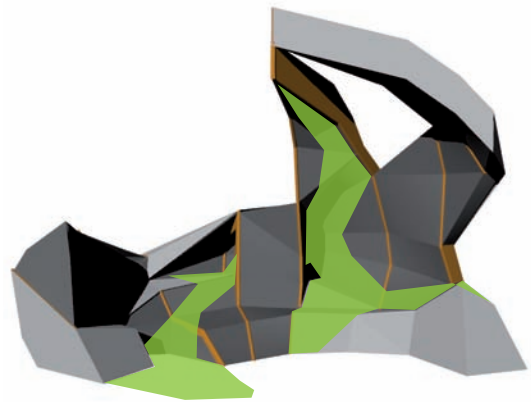
WHITE + ORANGE/ ORANGE

An alternative to the completely white structure and the orange carpet was a white felt structure and white shear walls together with orange coloured plates and carpet. However, relative to the above considerations on dirt and abrasion this did not work either. Furthermore the idea of painting both plywood shear walls and aluminium plates made the natural texture of the materials disappear, adding a stiff expression to the setting.



GREY + METAL + ORANGE + WOOD

As an opposing idea to the completely white and painted surfaces, the idea of letting all the materials stand in their natural state occurred. This led to the grey dappled surface of the accordion folded felt, aluminium, and the orange-yellow surface of the plywood, revealing the lines in the wood. However together with the orange carpet, still being a "treated" element the subtle expression desired was not fulfilled.



GREY + METAL + GREEN + WOOD

Relative to the above proposal on grey, metal, wood and orange, the carpet colour was changed to green, to perhaps better join with the colour of the wood. However the intuitive wish for the orange coloured had strongly been related to the appearance of other food together with the carpet, and here green perhaps would make meat look greyish. The orange on the other hand could work as a contrast or amplification of for instance green herbs and the more yellow, orange, brown and red food stuffs.



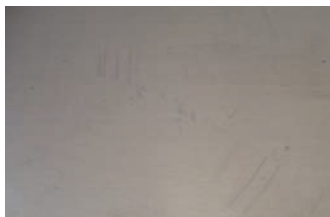
black stained plywood •



orange tufted felt carpet •



dark grey felt •

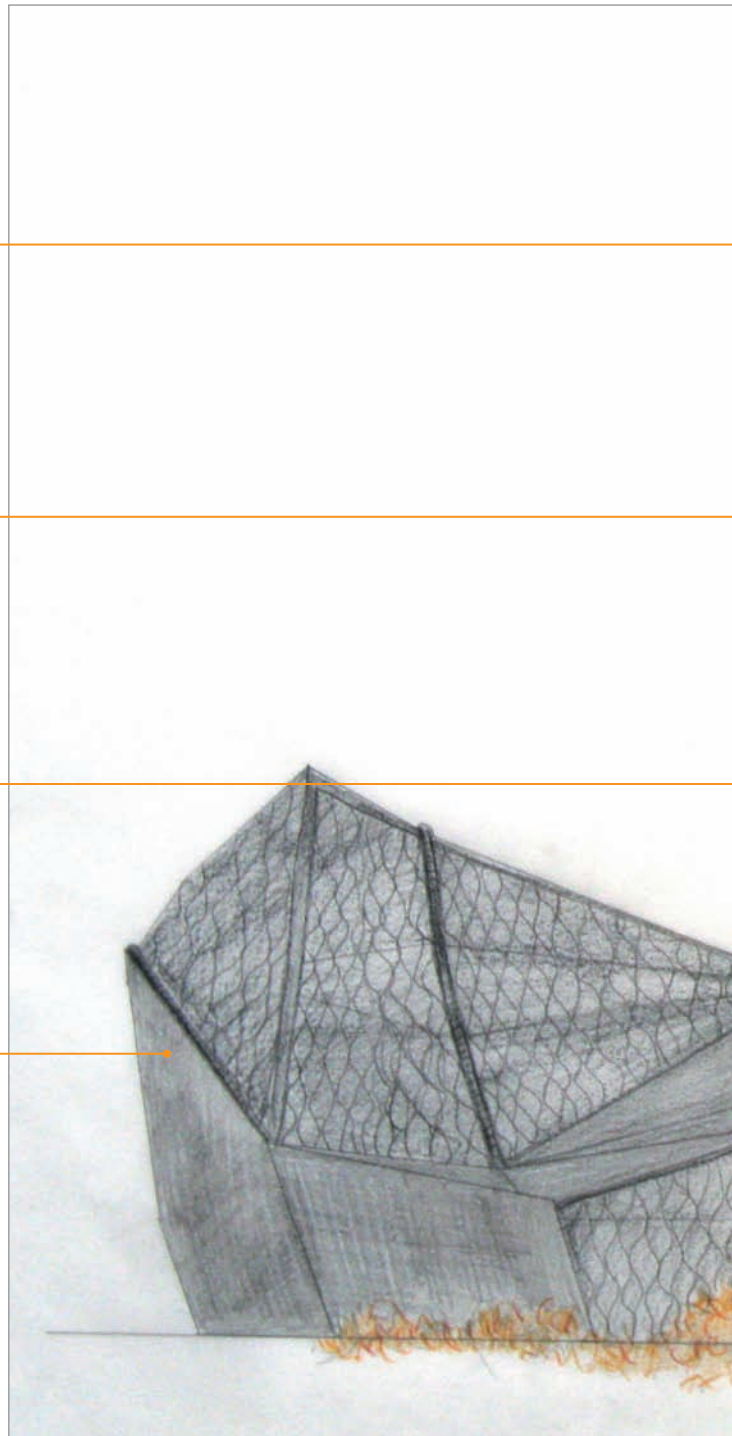


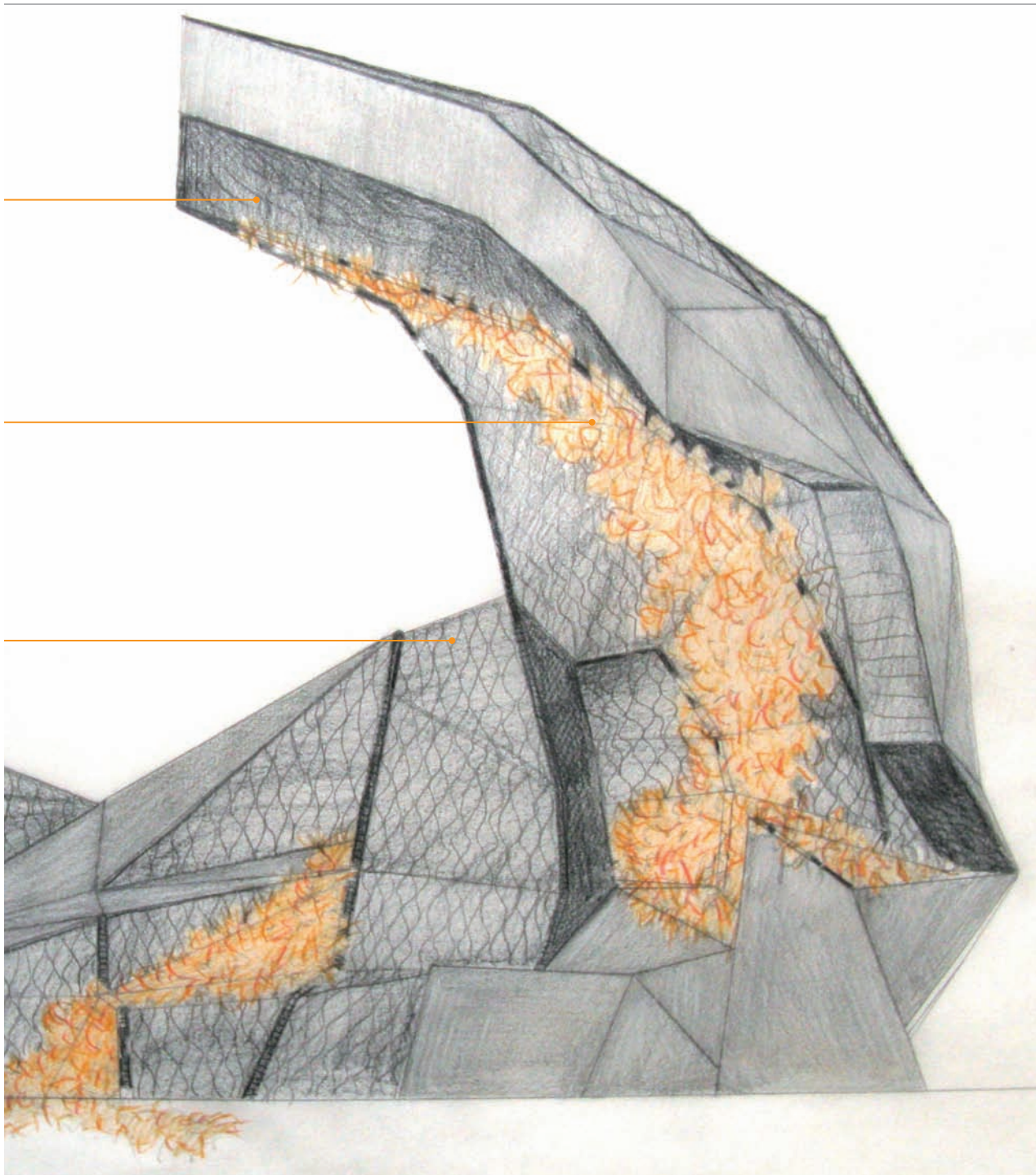
matt aluminium •

Fig. 9.35

The primary furniture module

With the ultimate need for a subtle background and the above considerations the final choice on materials and surface appearances therefore became the combination of dark grey felt structure, black stained plywood, matt aluminium, and the orange tufted carpet.





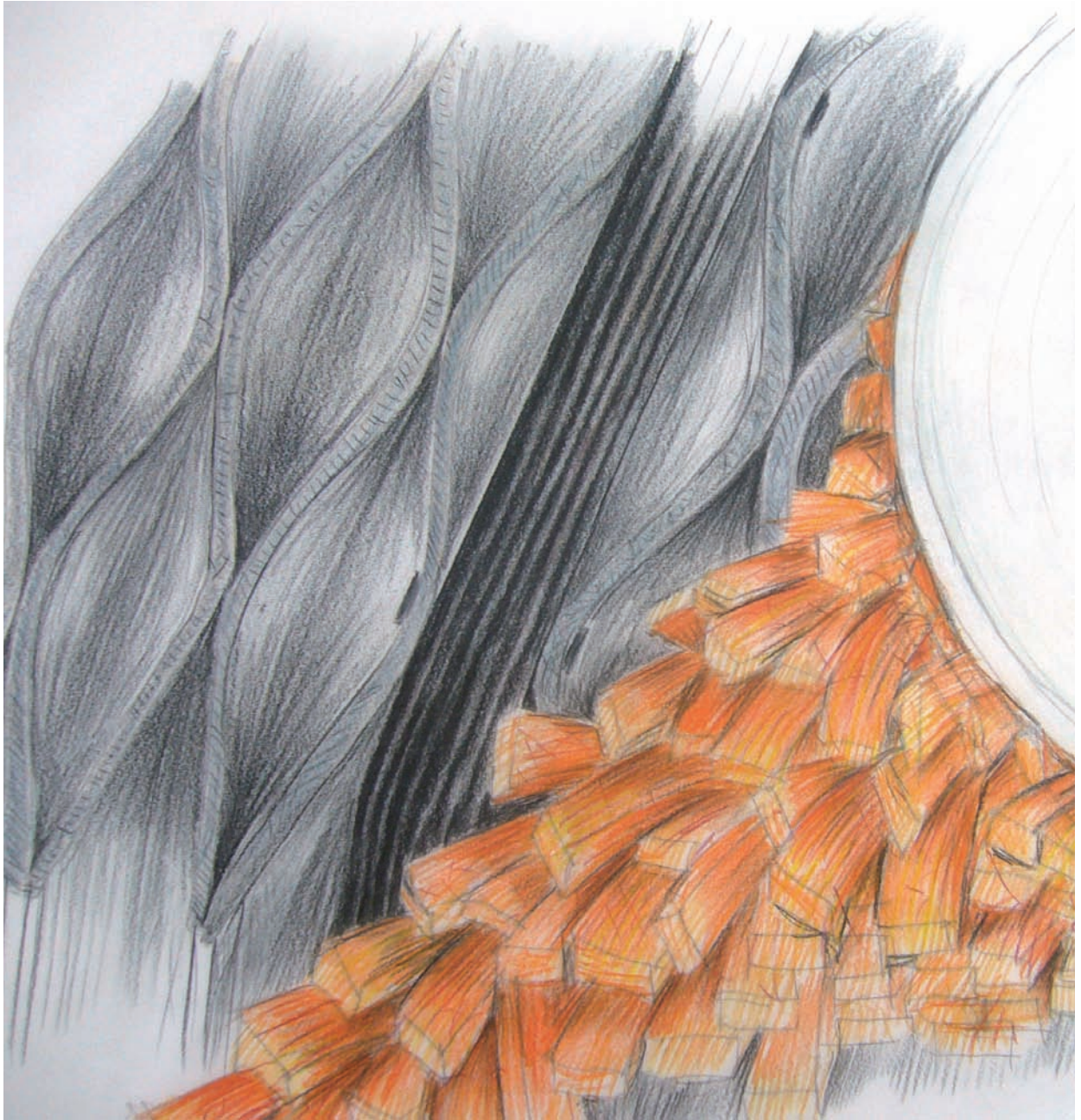
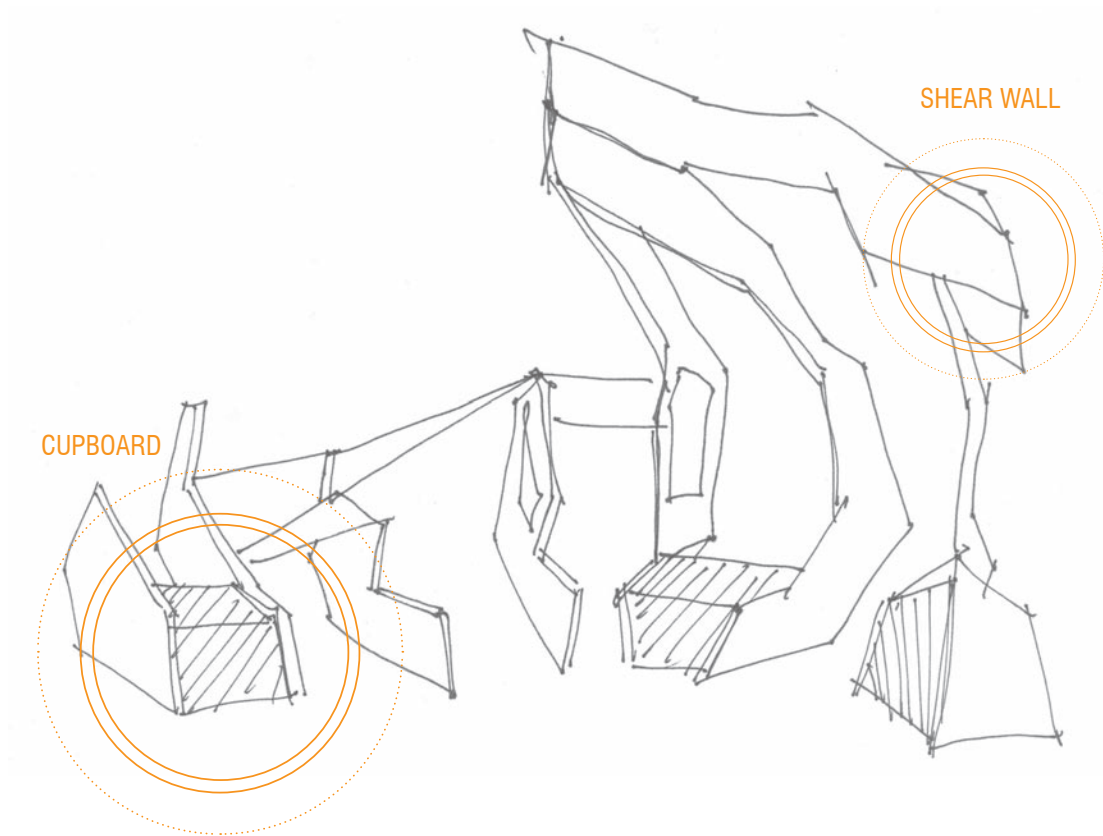




Fig. 9.36

Tufting of felt carpet

In continuation on the considerations of the surface treatments, detailing on the tufted appearance of the felt carpet was made. Here especially the shape of the individual fibres became important relative to the overall expression of the structure and the joining with the accordion folded felt. Here the final choice became the rectangular cross-section being tufted in different lengths to achieve a carpet almost resembling the movements of grass – in some parts being long and hairy, and in others being sort and dense. This variety within the surface partly hides the rough corners of the structure by simultaneously allowing for parts of the minor china to stand vertically in the carpet, instead of horizontally as in ordinary tables.

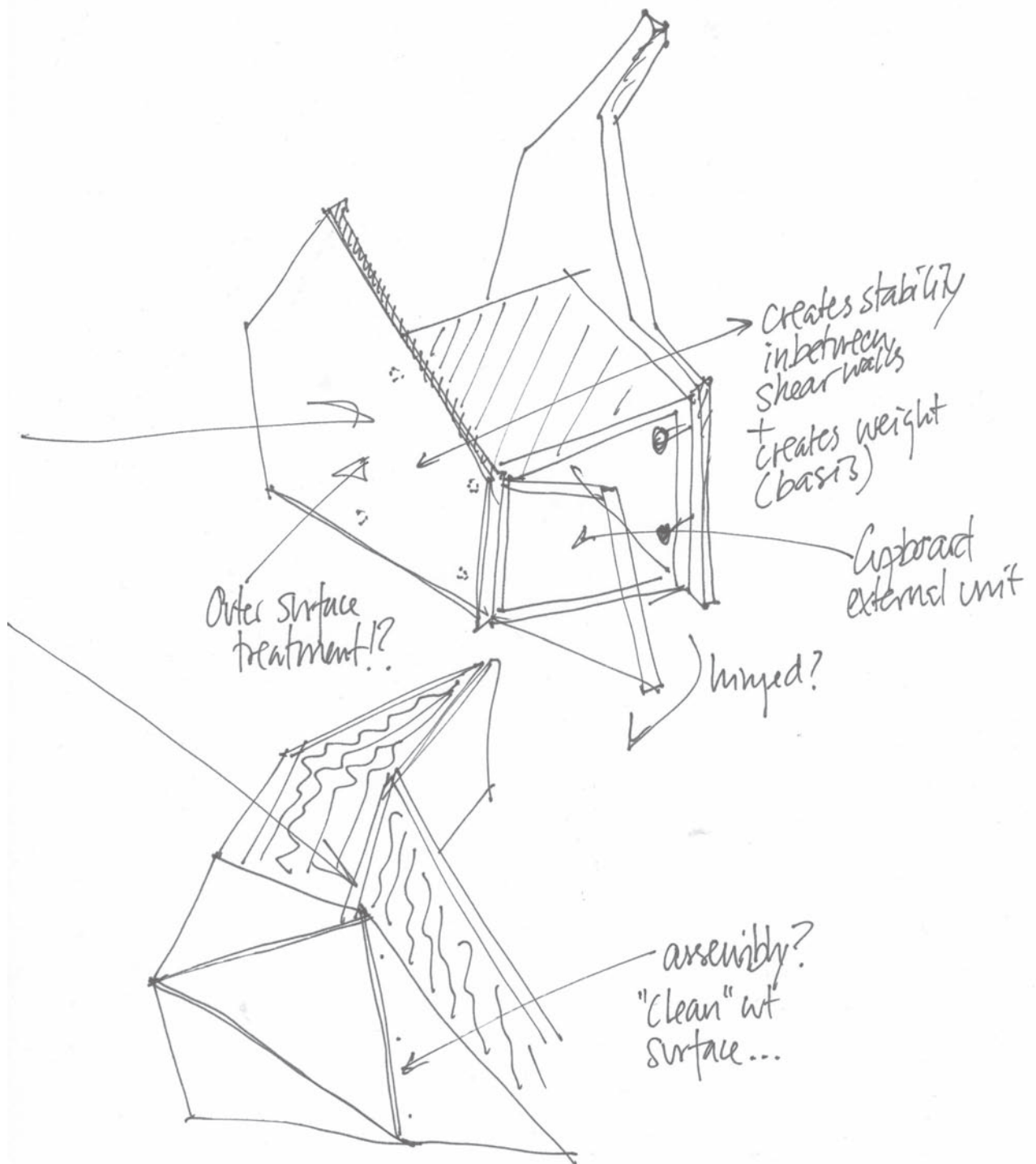


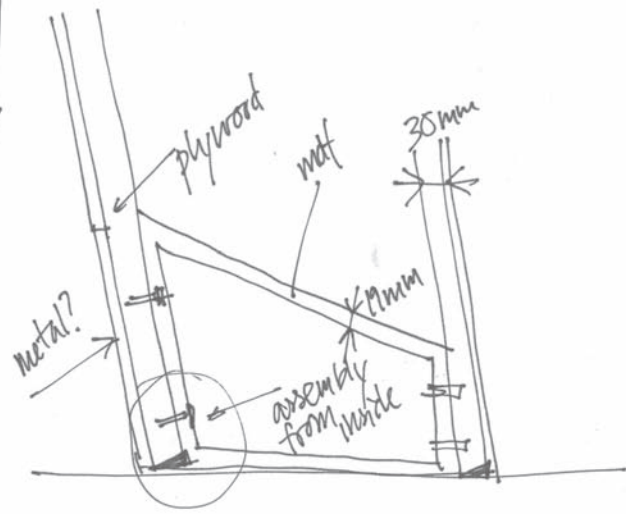
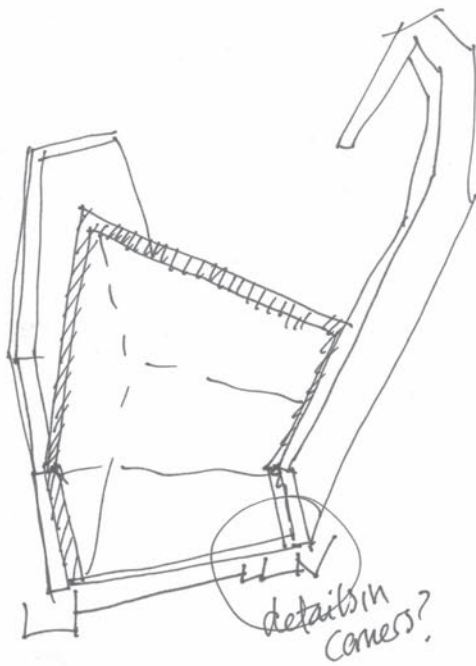
DESIGN PROPOSAL . DETAILING ASSEMBLY

Fig. 9.37

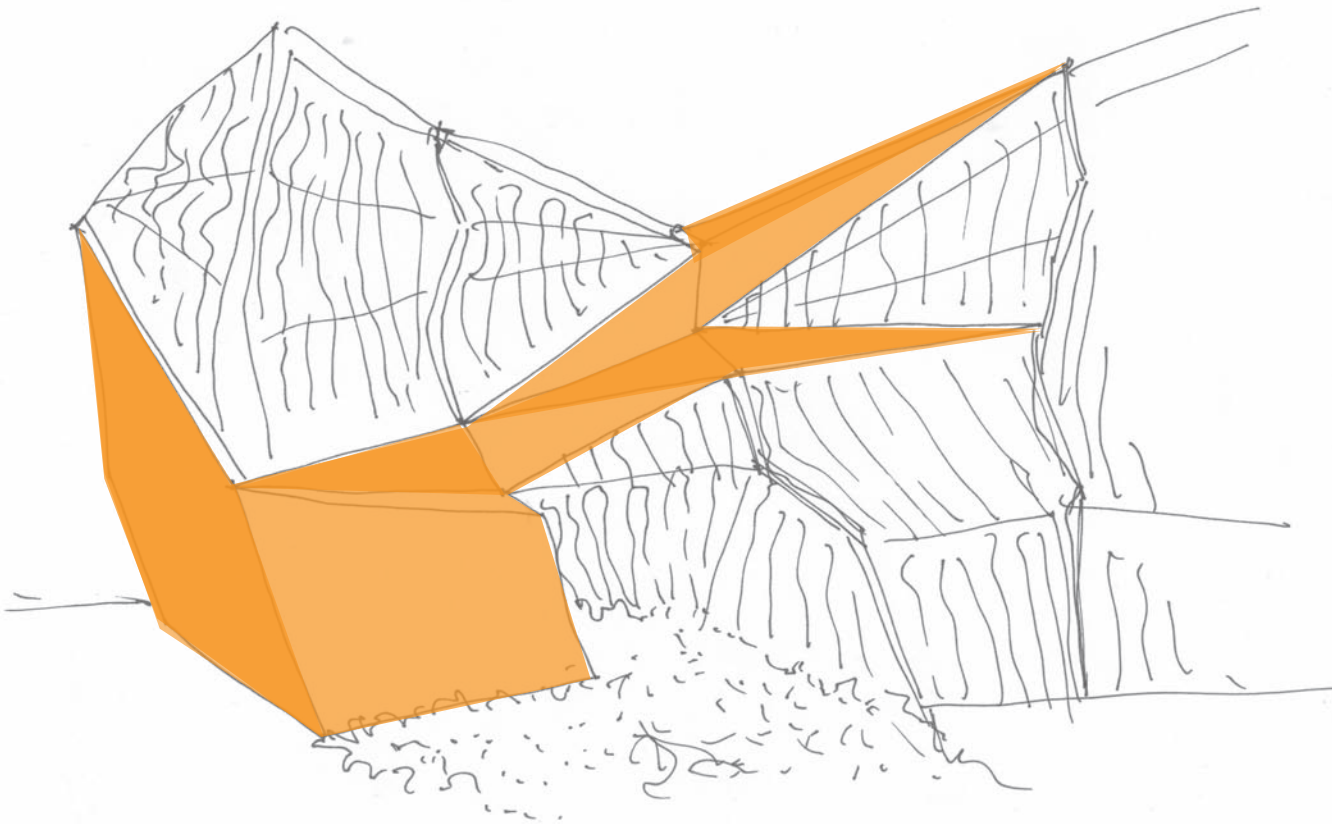
Detailing material assembly

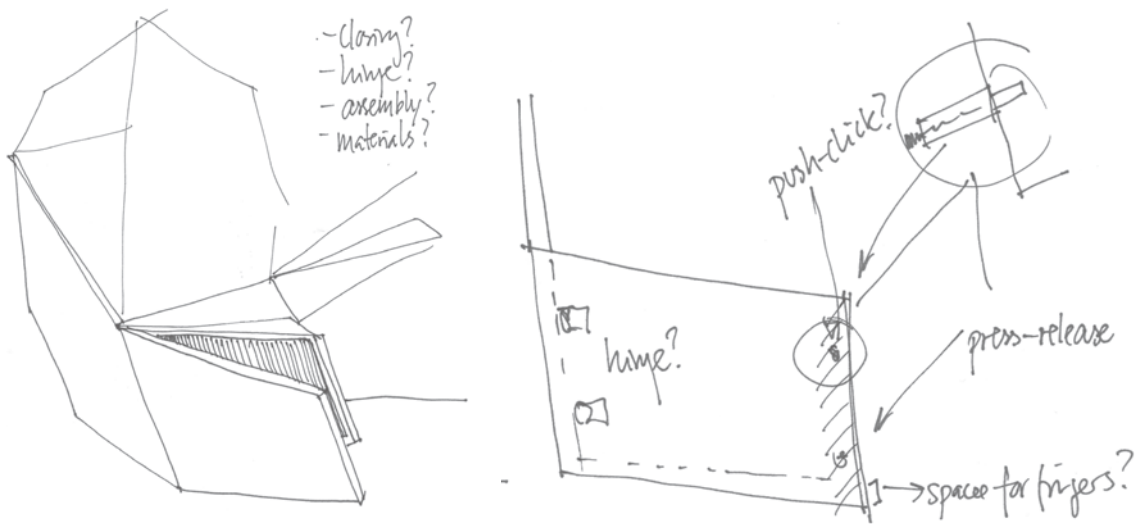
With the decision on the different materials and their surface treatment, further detailing on how to achieve the desired expression and overall appearance relative to the functional and constructional solutions where needed. Here especially the detailing of the attachment of the cupboards became significant for the assembly details, as this detail represented the joining of almost all the other materials as well. One of the main challenges in relation hereto was the desire of having the thin aluminium plates fold a smooth surface on top of the shear walls leaving no visible marks of assembly or attachment. An proposal for how to solve this, was to bend and fold the plates into minor shells being fixed directly in a slot in the back of each plywood shear wall. However, in the two end-parts of the structure folding along the wall into the interior, this solution had to be slightly changed. As the aluminium plates in those three specific situations are aligned with the wall, not allowing for the same attachment solution as the remaining plates (see further detailing in the enclosed drawing folder).





DETAILINGS IN ATTACHEMENT





DETAILINGS IN OPENING THE DOOR

DESIGN PROPOSAL . DETAILING CUPBOARD

Fig. 9.38

Detailing cupboard

Relative to the invisible attachment of the aluminium plates to the shear walls, the cupboards likewise needed to be fixed to the shear walls allowing for the door of the cupboard to open, as well leaving no visible marks from the outside. One solution could have been to simply attach a door on a hinge, utilising the space between the shear walls as the cupboard. But considering the need of extra weight, as well as stability, the solution of attaching an external cupboard in-between the two plates was instead chosen. An obvious attachment would then be the fixing of the cupboard to the shear wall from inside the side of the cupboard, however, the limited height of the cupboard makes this solution very hard. Whereas it has instead been chosen to allow for the opportunity of fixing the cupboard from the top and bottom instead (see detailed drawings in enclosed drawing folder).

DESIGN PROPOSAL . **FOOD PERFORMANCE + "KITCHEN"**

With the detailing of the materials, surface treatments and assembly a further detailing on the third element – the “kitchen” element for the food event was, however, still missing. In relation hereto the initiate idea about the “kitchen” element had been the importance of creating a specific centre of focus from the interior landscape of the primary furniture modules toward the performing chefs and their state-of-the-art culinary preparations. With the development of the initiate design concept the idea of an external central element therefore evolved, describing the appearance as a central rock or hard basis resisting the harsh treatment of respectively heat, liquids, moist, knives, china and food goods.

This initiate idea on the central rock or hard basis lasted through out the design development of the primary module of the Millennium Triclinium, and perhaps grew even stronger with the considerations on the material and the clarifying of surface treatments. By using black water flamed and brushed Norwegian granite for the top surface of the table and taking on the shape of a piece of rock the proposal for the “kitchen” element accentuates the idea of the hard centre, and perhaps further emphasises the idea of the interior landscape also in scale of the food performances during the food events.

The “kitchen” element encompasses two built-in drawers, a built-in heat plate, a built-in steamer, as well as power sockets for plugging in paco-jets and other kitchen utensils (see also enclosed drawing folder for details in the appearance).

The functional demands for the kitchen utensils has partly been based on the initiate contextual study of Gastronomisk Institut in Oslo, but also by a visit to the Danish high-fashion restaurant; restaurant Malling & Schmidt, owned by Rikke Malling and Thorsten Schmidt. Here the visit led to an elaborate understanding on the methods and activities related to the preparation and implementation of culinary performances, and revealed that the high-culinary performances in the contemporary Nordic kitchen mainly utilises kitchen tools as heat plates, steamers, chiffon bottles and paco-jets.

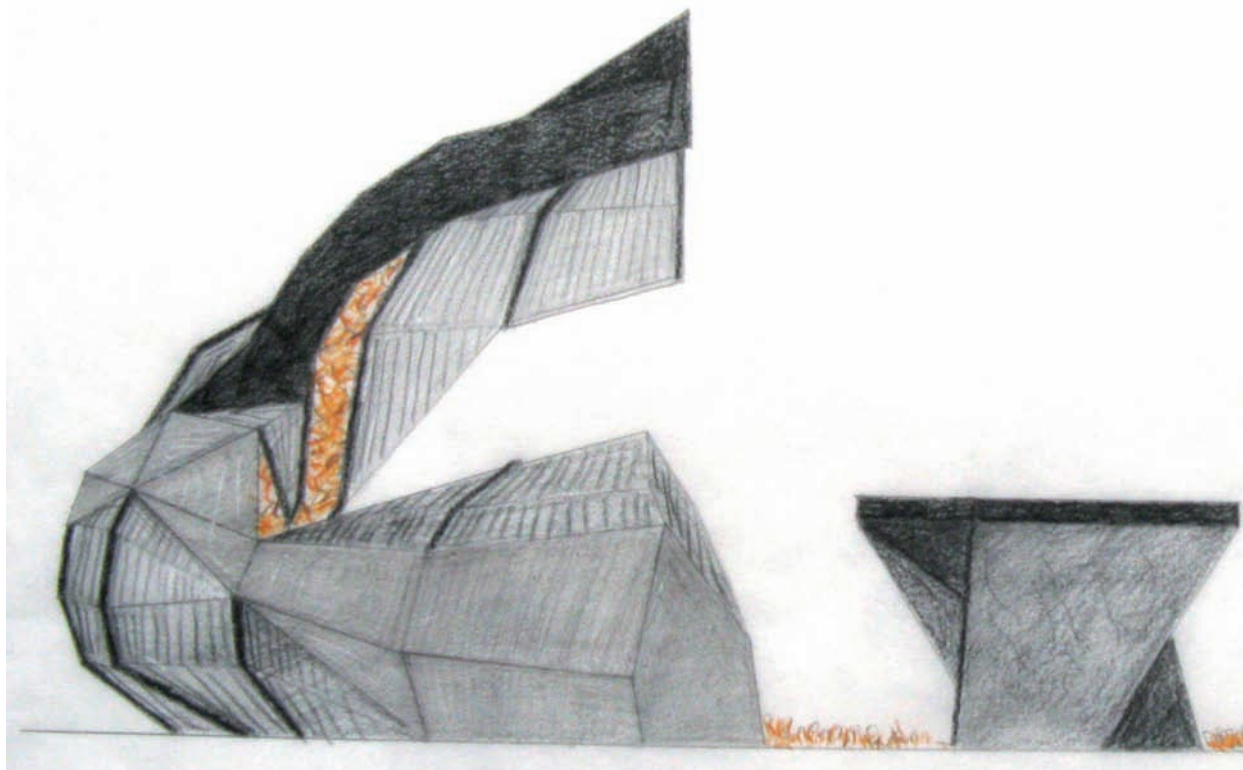


Fig. 9.39

Restaurant Malling & Schmidt

The restaurant Malling & Schmidt owned by respectively Rikke Malling and Thorsten Schmidt is among some of the best restaurants in Denmark, and it continuously receives culinary acknowledgements both through food reviews and food events created in collaboration with other chefs and restaurants.

The restaurant has become famous for its magnificent approach towards gastronomy, and the utilisation of performative elements in the actual preparation and serving of food. Here especially the aspects in the field of Molecular Gastronomy are utilised to create surprising and astonishing meal experiences both through gustatory taste of the food, and the physical appearance by means of tableware and interior decor.
(Malling & Schmidt, 2008)



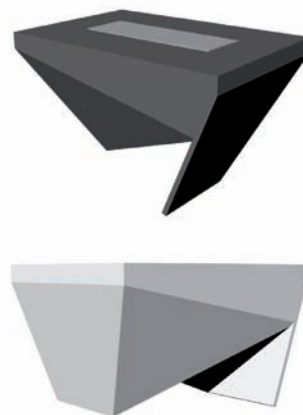
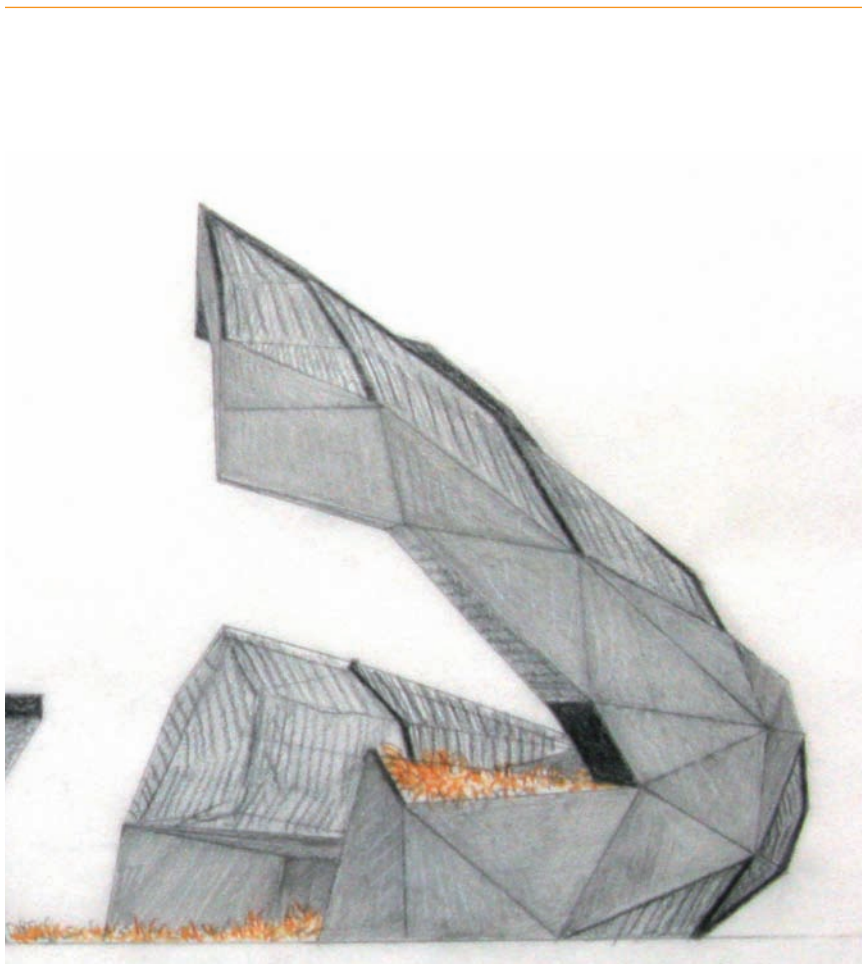


Fig. 9.41

The food event

The idea of the central “kitchen” element as a hard rock was further emphasised with the monolith-like shape and a black Norwegian granite surface, furthermore being resistant to harsh handlings of knives, china, heat, moist, liquids and foods.

ILLUMINATION . STAGING THE SENSE OF SHADOW

With the design strategy from the theoretical part and the initiate considerations of the room programme it was relative to the development of the multi-sensuous experience of the interior landscape both in the case of the showroom and the food event, suggested how the utilisation of artificial light could enhance the sense of depth and texture in fabrics, as well as provide a staging quality to the display of the chinaware. Considerations on the illumination of the final design proposal have therefore been conducted relative to the intention of enhancing the narrative of the specific movement through the interior landscape of the setting, as well as accentuating the strong focus towards the centre during especially food events. Furthermore considerations have been made towards how to utilise the illumination of the geometrical patterns occurring with the accordion folded felt to create a sense of depth and glimpses of the interior/ exterior through the penetrated surface of the structure.

Regarding these aspects one idea was to utilise built-in light fittings in-between the accordion felt structure, thus illuminating the structure from within. However, this would probably cause a very uneven and too diffuse light to achieve the desired wish of staging both exterior and interior. Therefore considerations were instead made toward attaching smaller light fittings along the edges of the shear walls to create a sense of spot lights being able to point towards different directions relative to different functions. However, also this solution would provide a very uneven distribution of the light and instead possibly create areas with risks of glare as well as too strong reflection from the surfaces of the china. A third and final proposal is therefore a solution in between the above considerations, taking its point of departure in the dramatic staging of the entire setting be means of external stage lights hanging above the setting to illuminate both the exterior, interior and "kitchen" element. This illumination deliberately resembles the strong sense of light and shadow - inside and out, - night and day to create a theatrical setting staging and emphasising as well the structural elements in itself, as the staging of the china at display or the performing chefs preparing food.

Fig. 9.42

Winter night in Rondane
Painting by H. Sohlberg.
(Norberg-Schulz, 1996:24)



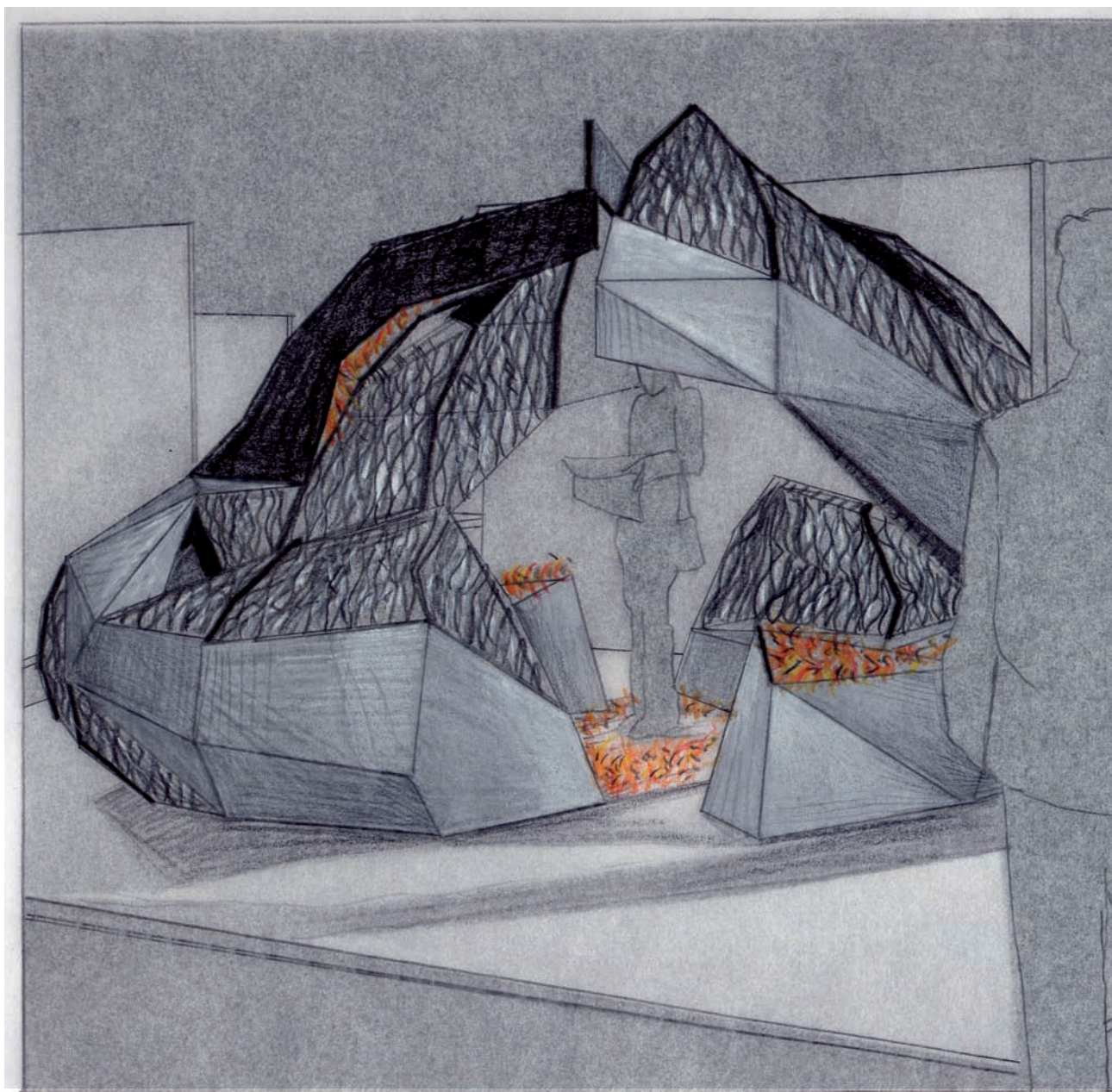


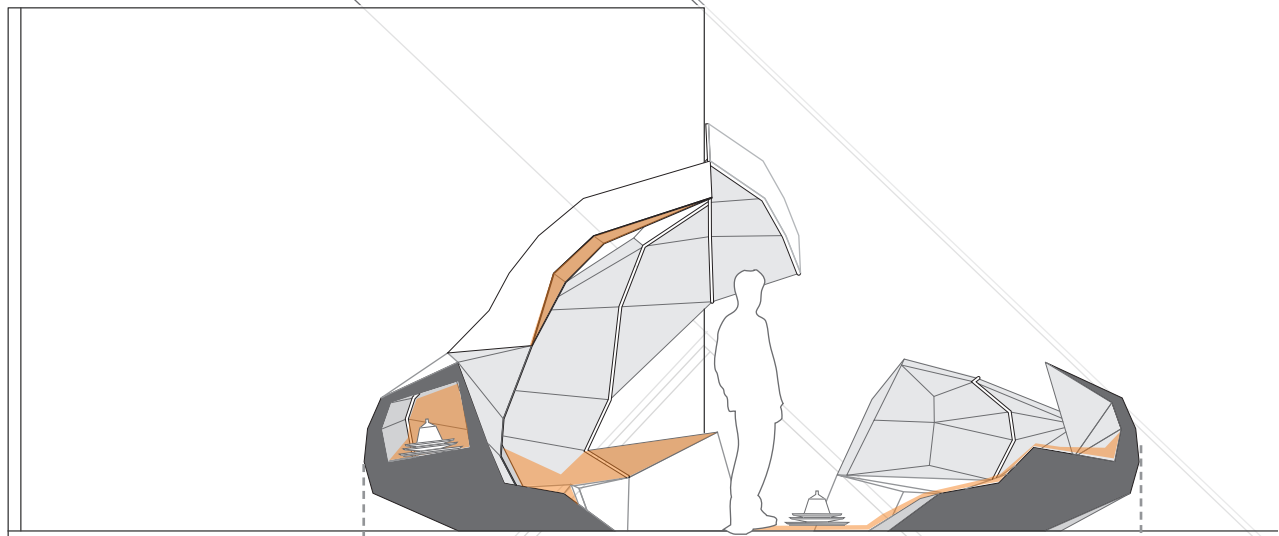


Fig. 10.0

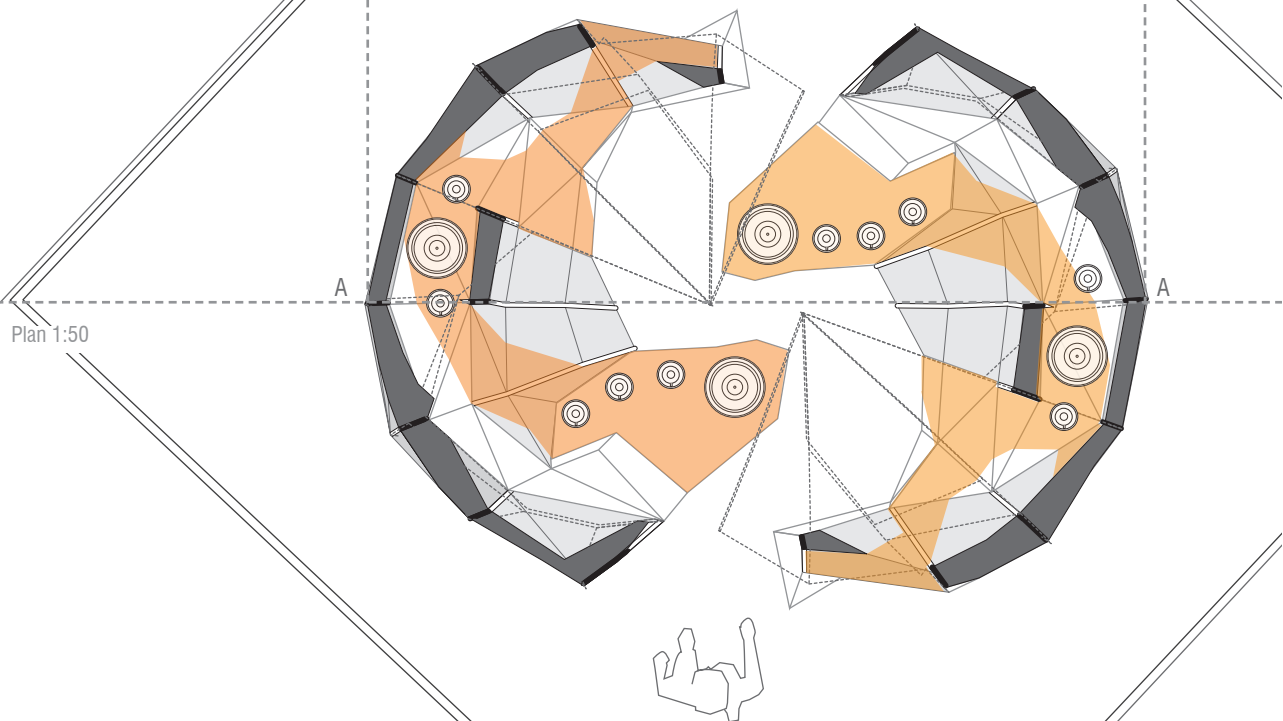
Millennium Triclinium
Showroom Exterior

Chapter 10

DESIGN PROPOSAL . **PRESENTATION**



Section A-A 1:50



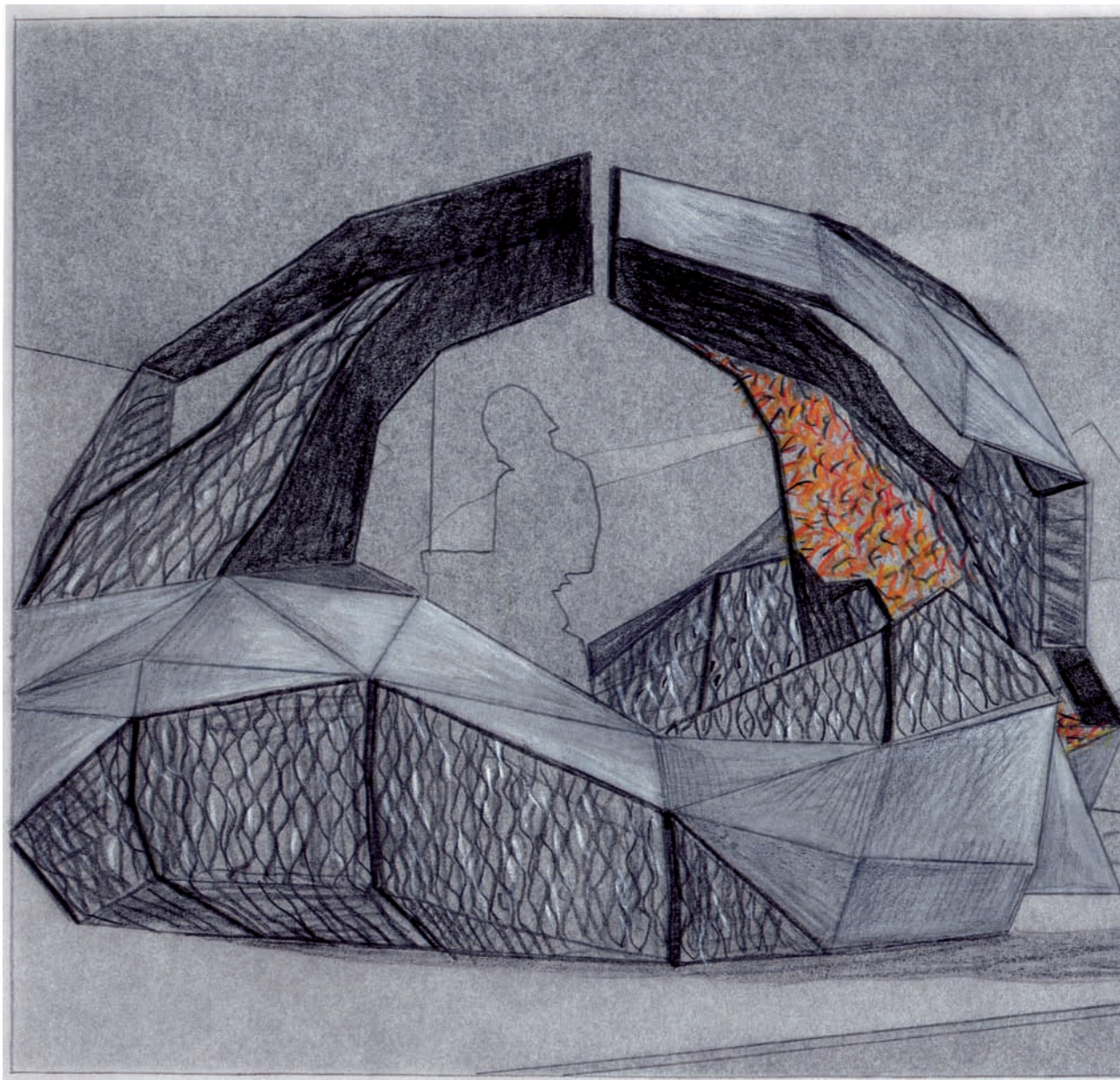
Plan 1:50

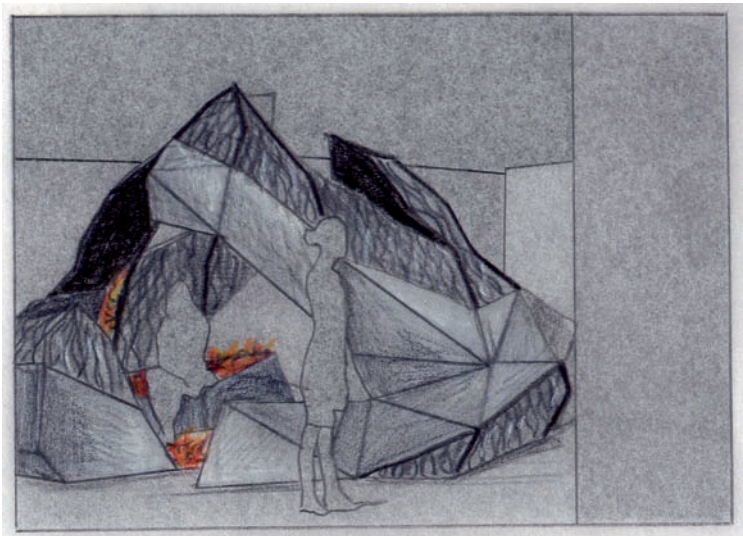
Plan drawing + section 1:50

SHOWROOM . STAND S2214 . TABLETOP . HOTELYMPIA 2008

Fig. 10.1

>> The scenario of the showroom facility encompasses two of the primary furniture modules closely placed together in the centre of the stand at the Tabletop section area. Here the setting of the Millennium Triclinium in the gross offer on tableware for the professional culinary business merges interior with exterior and creates an intimate “room within the overall room” for the exclusive exhibition and promotion of Figgo chinaware ...<<





Perspective

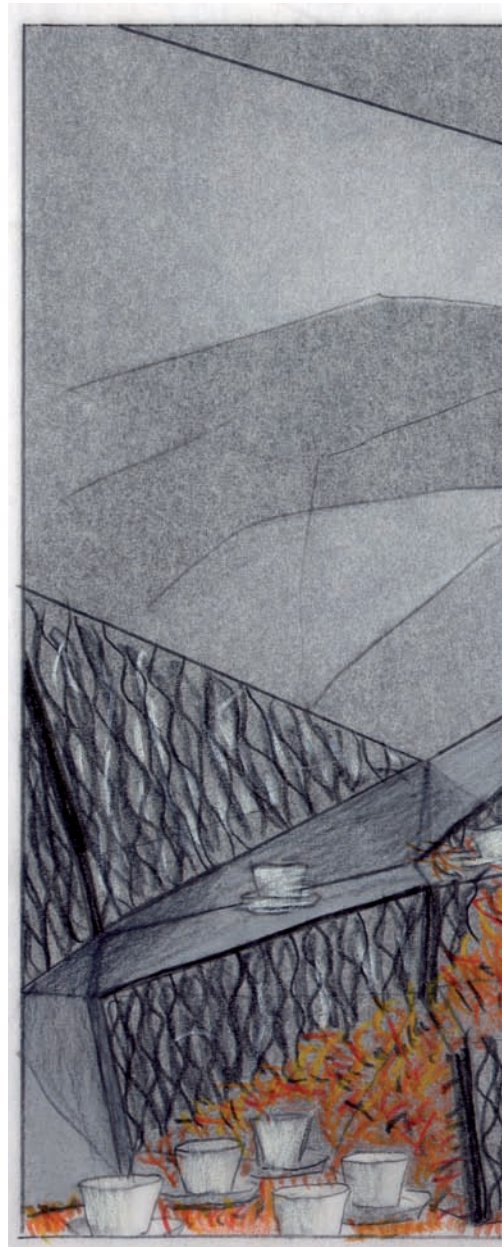
SHOWROOM EXTERIOR

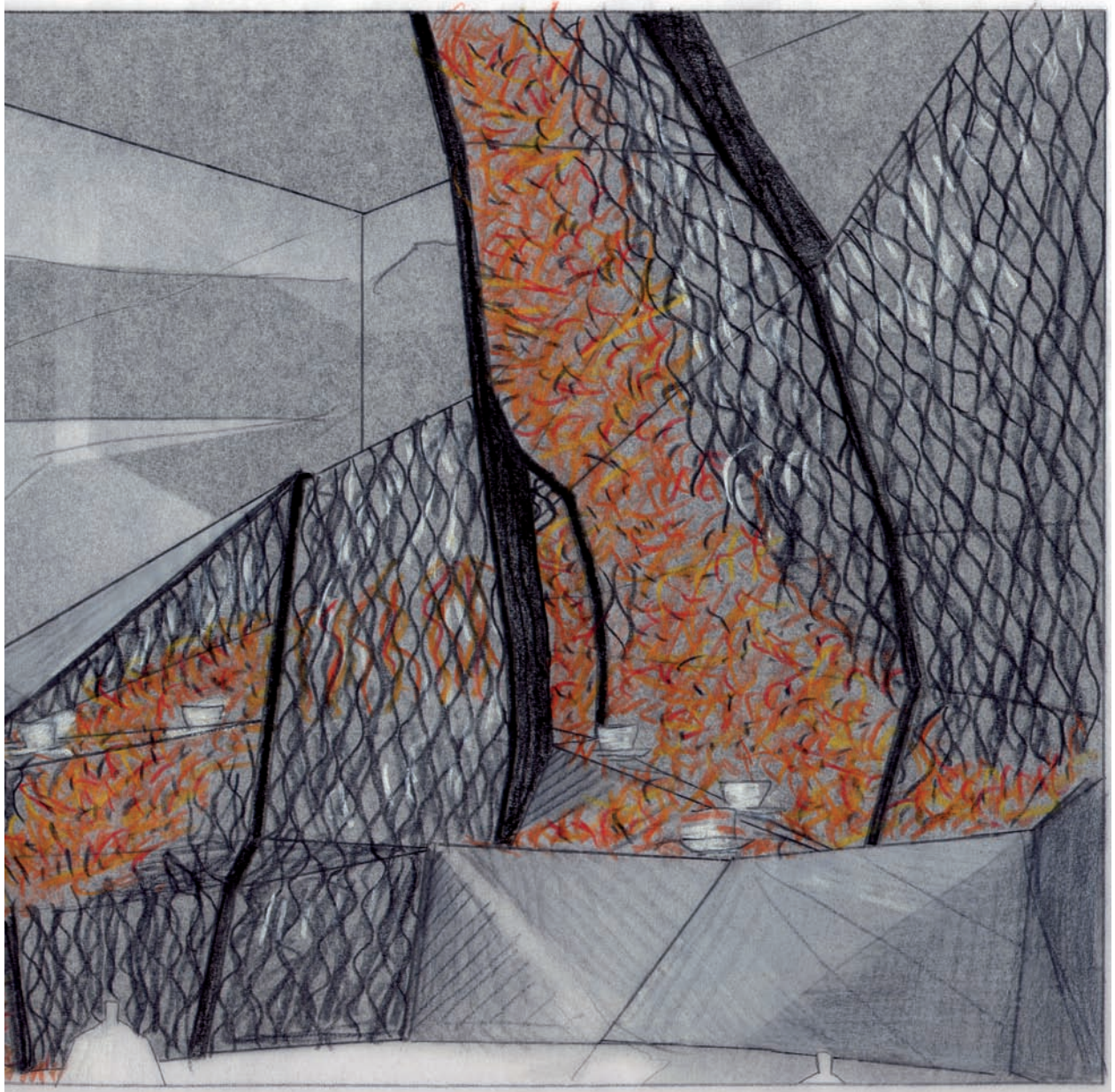
>> ... The architectural appearance of the Millennium Triclinium is strongly defined by an encircling and embracing spiral-like shape, standing on its tip-toes in the middle of the exhibition space, partly turning its back towards the crowd, shielding or protecting its content from the context. However, simultaneously luring and tempting trade fair exhibitors for further exploration on the inside with the dramatic illumination staging diffuse glimpses of chinaware, colour, and shadow revealed through the perforated skin. In this way the structure places itself with the sides towards each corner of the stand and deliberately like a grotto seeks to hide its content from the outside, luring attention and surprise by the dramatic illumination and appearance of the skin providing specific visual connections toward the interior, but still forcing spectators to enter the setting to fully understand its purpose. The only way to enter is however only by the two small openings created in each side of the stand in-between the two primary modules. Here each of the furniture modules stretches its legs or shoulder out deliberately compressing the space and cutting the direct way off. Instead forcing the spectators to move around the setting and engage with the architecture to finally being able to experience the chinaware ... <<

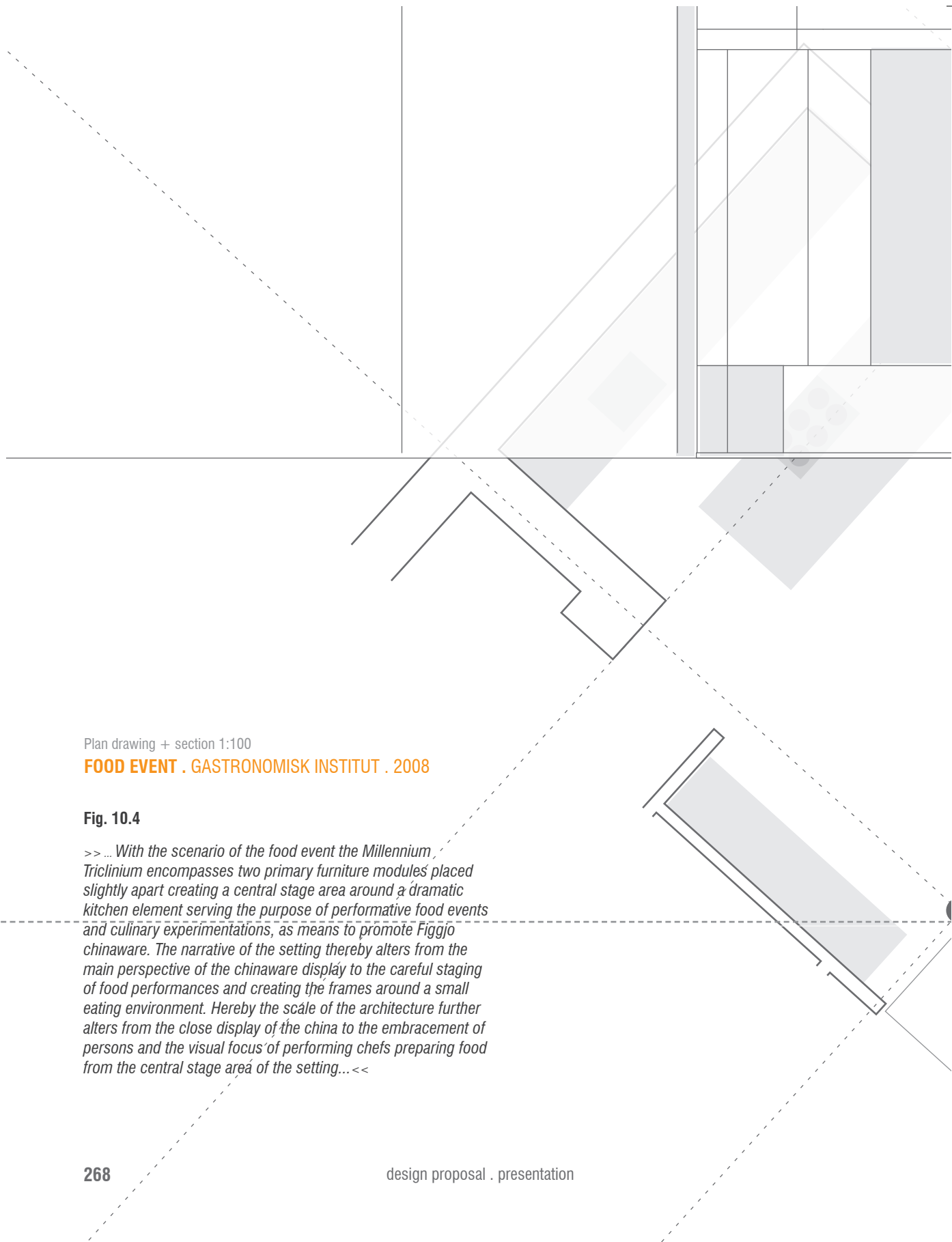
Perspective

SHOWROOM INTERIOR

>> ... On the inside the structure takes this physical engagement of architecture and chinaware to its extreme by utilising the stark contrast and tactile appearance of a dense tufted felt carpet crawling off the floor from the centre of the setting into each of the furniture modules, creating not only a visual and tactile experience put further luring senses of sound, scent and taste with its intriguing surface appearance. The carpet thereby partly creates a soft background for the display of the hard, white glazed china but furthermore like an organism inherits part of structure growing off the floor into niches for relaxation or cavities for close exploration, walls for display or cantilevered roof spaces embracing you as you watch the newest within Figgjo chinaware. A very specific movement and narrative is hereby created within an interior landscape of china, either leading spectators directly across the room or deliberately inviting to step off the path, enter the carpet, engage with the architecture and allow you to explore the chinaware in different sensuous levels and scales of design, engaging with both the body and mind... <<





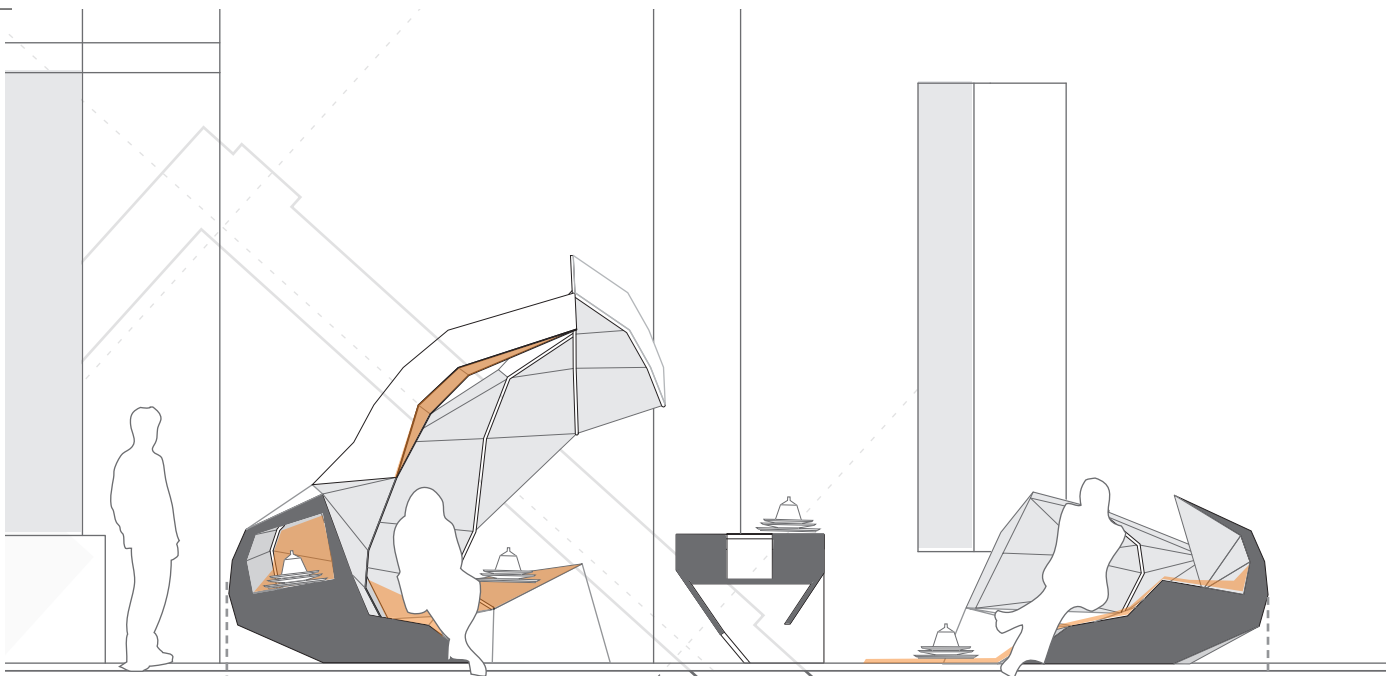


Plan drawing + section 1:100

FOOD EVENT . GASTRONOMISK INSTITUT . 2008

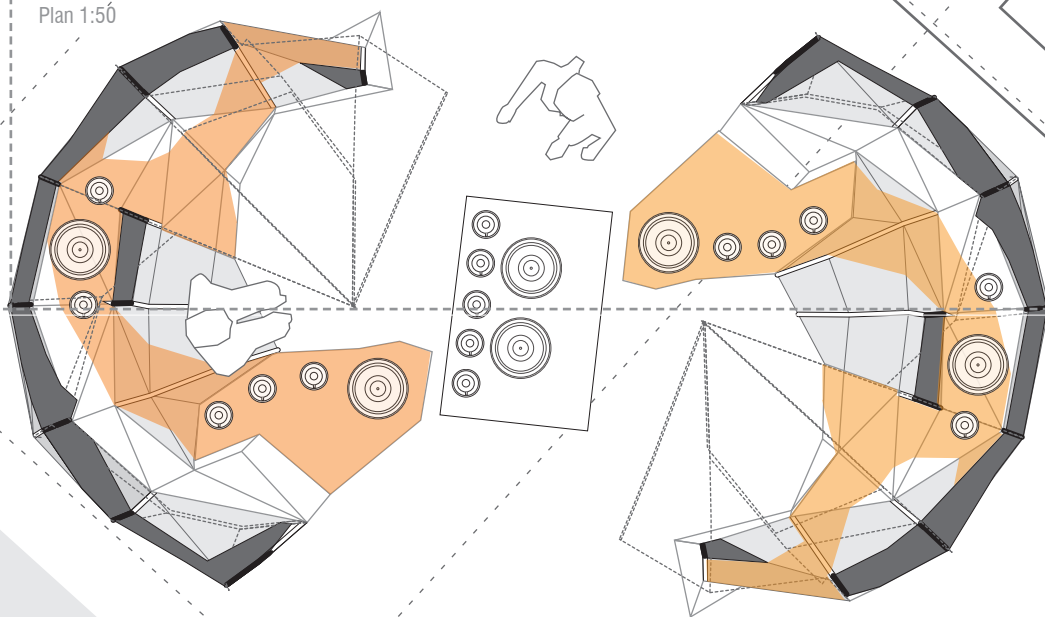
Fig. 10.4

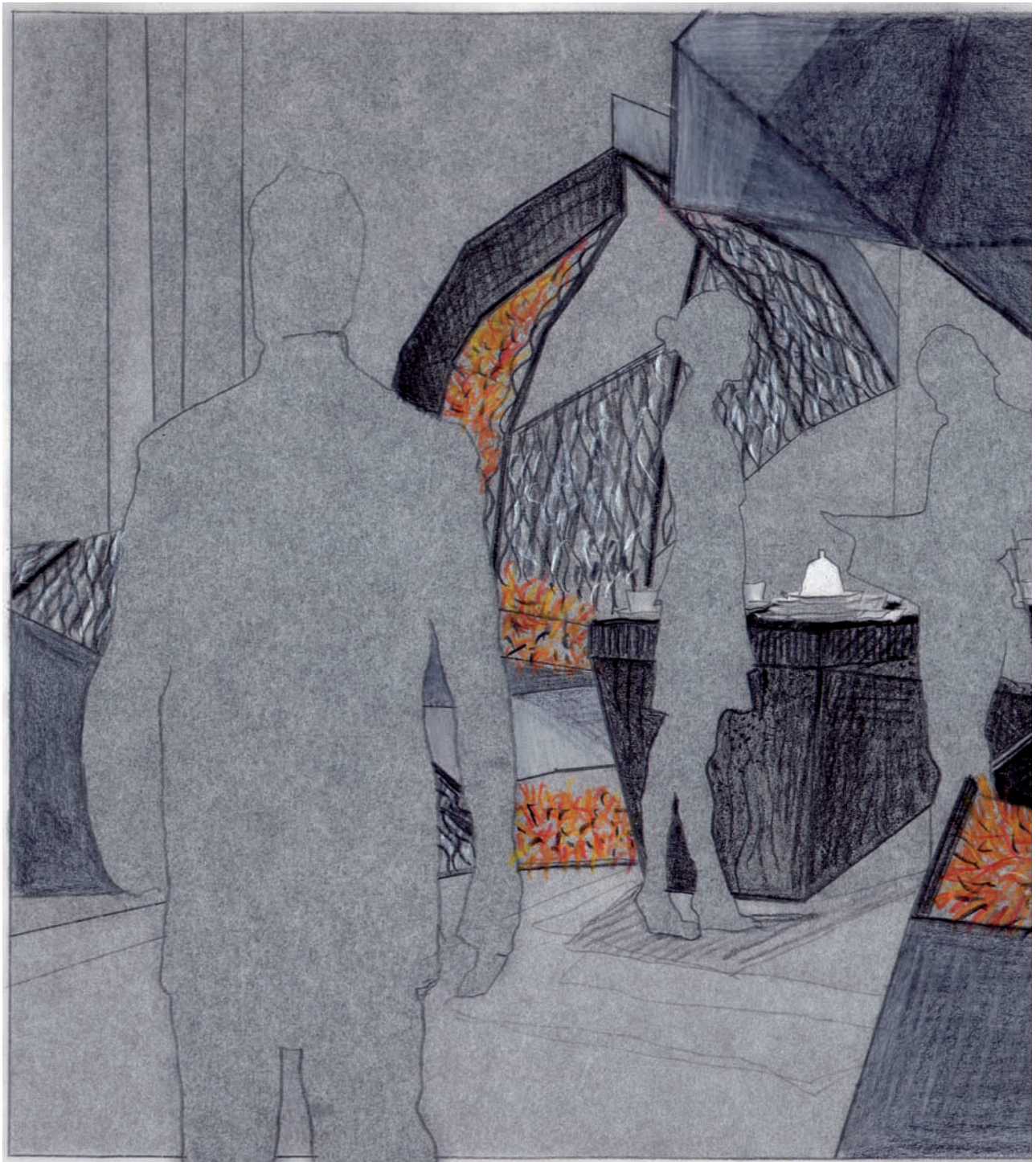
>> ... With the scenario of the food event the Millennium, Triclinium encompasses two primary furniture modules placed slightly apart creating a central stage area around a dramatic kitchen element serving the purpose of performative food events and culinary experimentations, as means to promote Figgjo chinaware. The narrative of the setting thereby alters from the main perspective of the chinaware display to the careful staging of food performances and creating the frames around a small eating environment. Hereby the scale of the architecture further alters from the close display of the china to the embracement of persons and the visual focus of performing chefs preparing food from the central stage area of the setting...<<

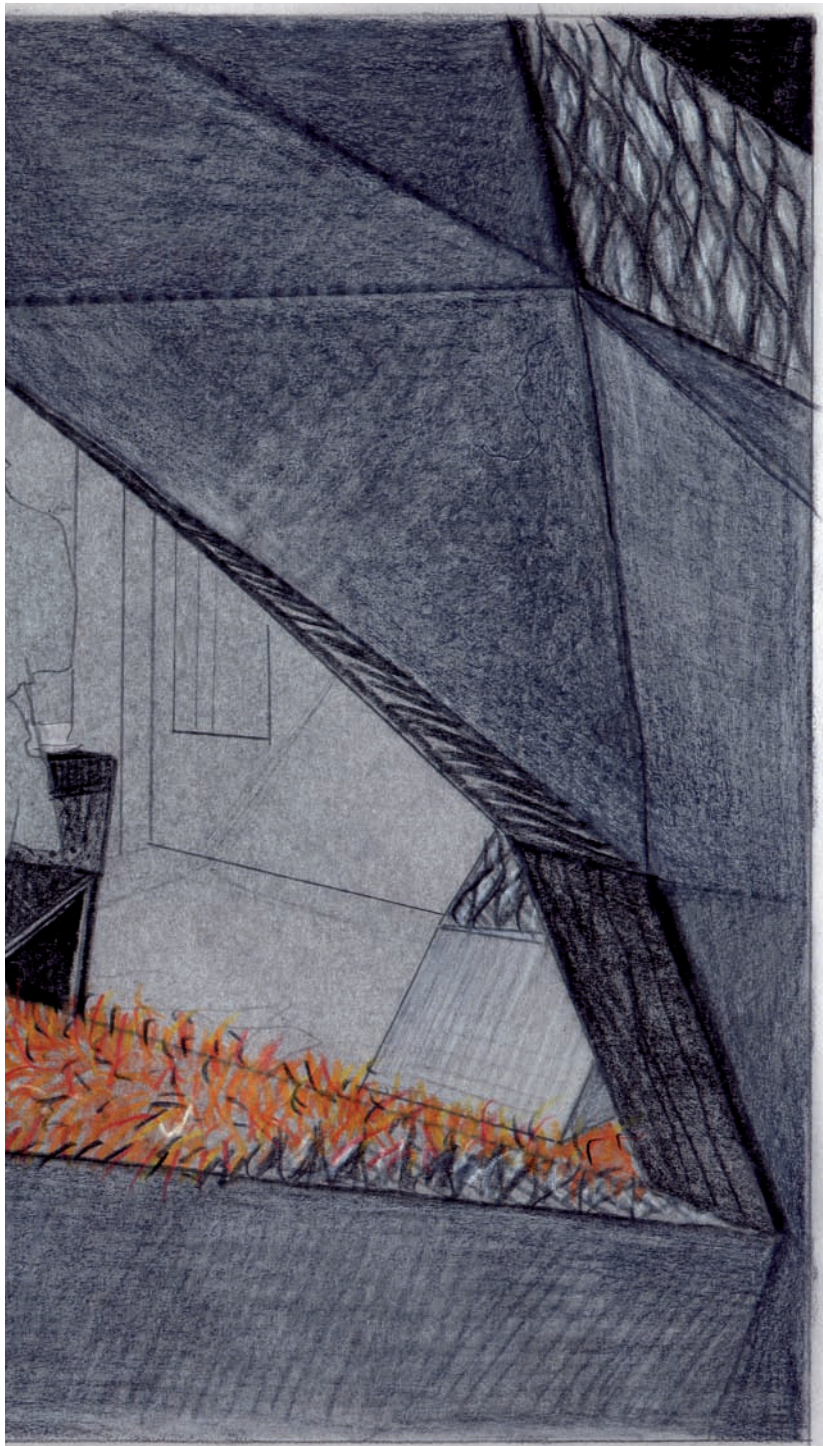


Section A-A 1:50

Plan 1:50







>> ...This is emphasised as the illumination of the kitchen area from a distance creates a dramatic sense of light and shadow, revealing glimpses of movement through the penetrated surface of the setting. Thus luring attention and surprise towards the activities of the interior of the Millennium Triclinium, as well as inviting distant spectators to come closer for further exploration...<<

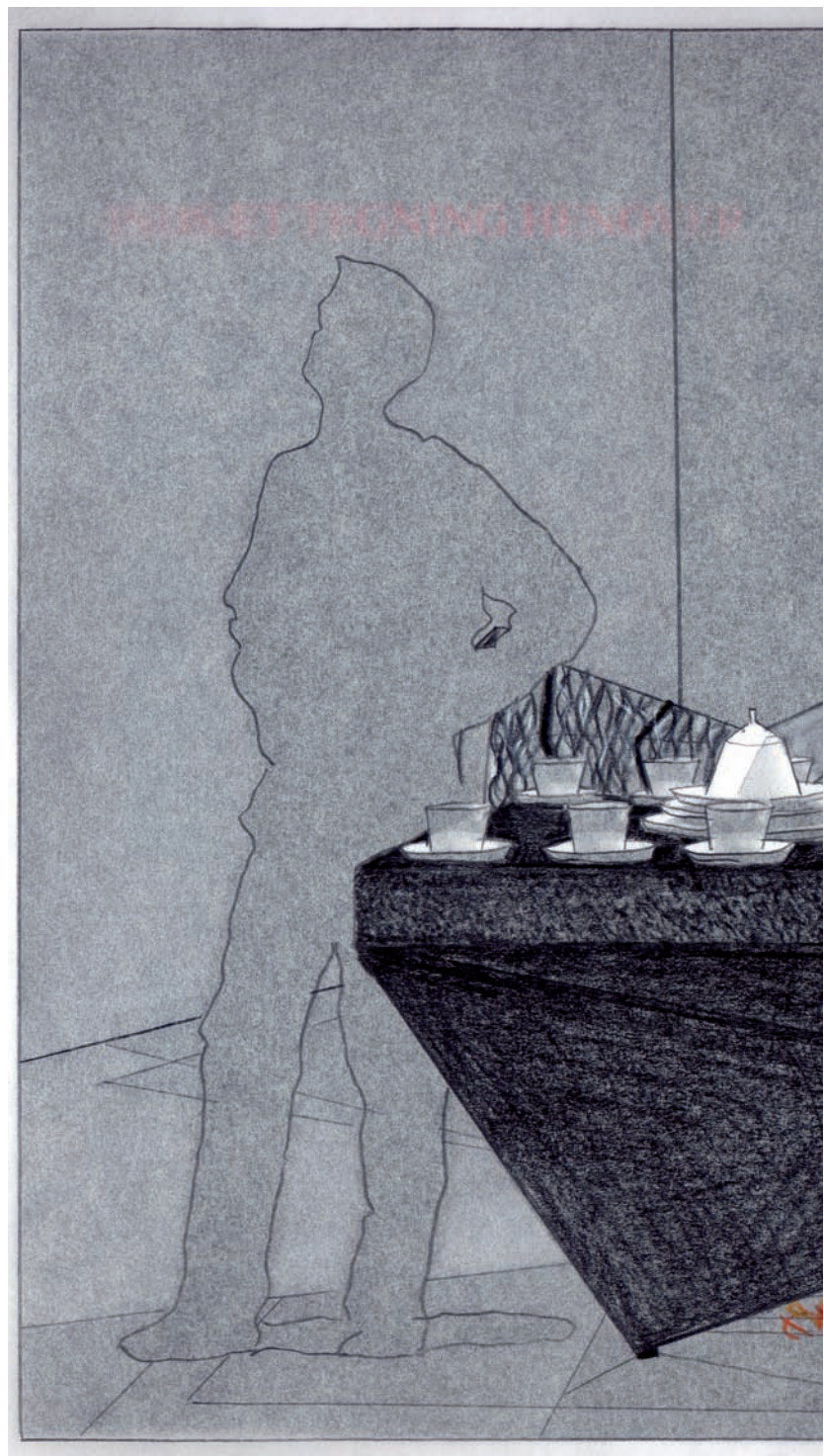
Perspective

FOOD EVENT INTERIOR

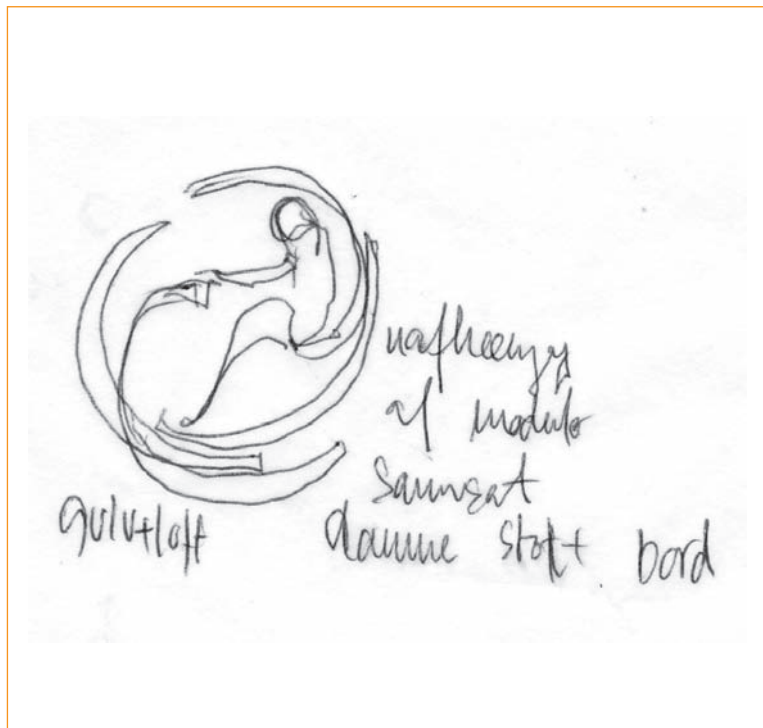
Perspective
FOOD EVENT STAGE AREA

>> .. As one enters the interior space of the Millennium Triclinium the characteristics of the encircling and embracing shape together with the theatrical illumination, despite the enlargement of the context, still manages to create the sense of a rather intimate and semi-private room with in the overall room. Hereby the frames of the Millennium Triclinium allows you to sit comfortably in the dim atmosphere of the interior landscape, among fellow spectators in the soft and warm embracement of the structure watching performing chefs prepare state-of-the-art gastronomy on the newest of Figgjo chinaware. With the soft folding of felt into an accordion pattern as well as the utilisation of the dense tufted felt carpet, surfaces are created forming small niches for seating or intriguing visual patterns of shadow and light inviting for touch and bodily engagement with the architectural setting. As you silently decide to sit, lie or recline and leans back in the niches of the structure to experience the performing chefs, the soft appearance of the felt embraces you, provides you with warmth and simultaneously invites for close contact with fellow spectators across the dinner, initialising not only a multi-sensuous experience merging senses of touch, sound, taste, vision and scent, but further invites for the development of social relations across strangers

<<







Chapter 11

DESIGN PROCESS . **DEVELOPING THE ARCHITECTURE**

As seen throughout the different chapters of respectively the theoretical part and the design part, the task to design the Millennium Triclinium for the promotion of Figgjo chinaware have required the investigation and evaluation of many different aspects, ranging from history and restaurant outlines to detailed investigations on the specific movement of the fibres of a felt carpet.

As visualised with the previous chapters the actual design process of developing the final design proposal has therefore incorporated the approaches of diagrams, hand drawings, physical models, and digital models as well as digital visualization.

The use of simple hand drawings has been utilised throughout the entire process to quickly illustrate considerations on everything from theoretical diagrams to concept developments, shape developments and detailed solutions on the choice of material.

During the actual design phase those simple sketches developed into more detailed sketches seeking to illustrate the initiate considerations on spatial qualities and moods of the Millennium Triclinium. And in addition hereto detailed digital modelling performed in the programme Rhinoceros has been used to transform the initiate ideas of the hand sketches into three dimensional form, thus allowing for a quick and tangible comprehension of the entire shape via the computer. However, an important aspect of fully understanding the digital models was the transformation of digital form into physical models. Therefore a number of digital and physical models have repeatedly been developed, always seeking to illustrate the digital creating in real hand, and visa versa seeking to convert the spatial qualities of the physical model to the digital.

Fig. 11.0

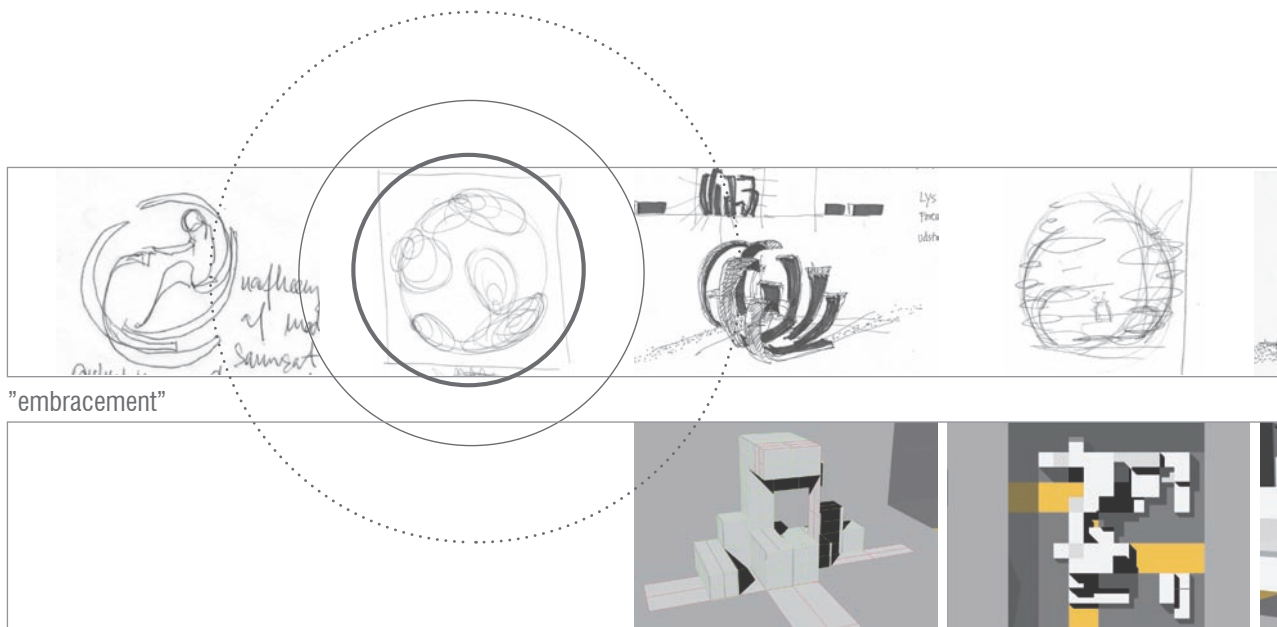
First sketch

Reflecting on the design process, I fell upon the first small sketch I made during this project. Quickly drawn in a note book, next to notes on sensory science and consumer theory this sketch encapsulates the essence of the project both theoretically and design wise with its illustration of the subject closely embraced by the architecture.

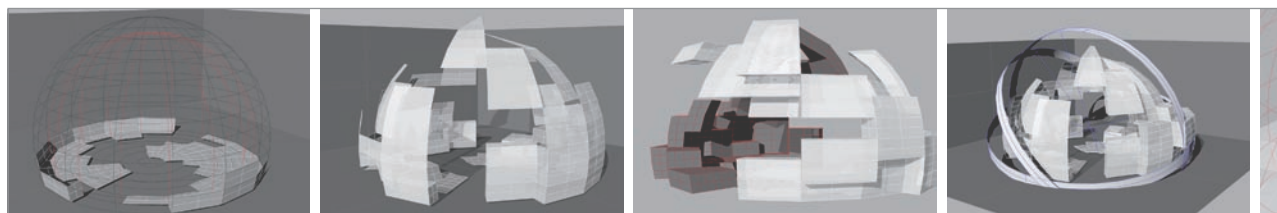
Whereas much of the actual shape development was made in digital space, the physical models and especially the detailed full-scale hand drawings have however been very important tools in the development and sense of tactile qualities in terms of both texture and illumination. And especially the full-scale hand drawing has thereby been key elements in the evaluation of proportions, materials, surface treatments and assembly details.

In the following a series of model pictures – from preliminary to detailed ones together with sketches and digital renderings are presented to give an impression on how these different media have been utilised during the different design phases.

After these process illustrations a sub conclusion regarding the design development is provided, followed by the final concluding perspective on the results of the entire project.

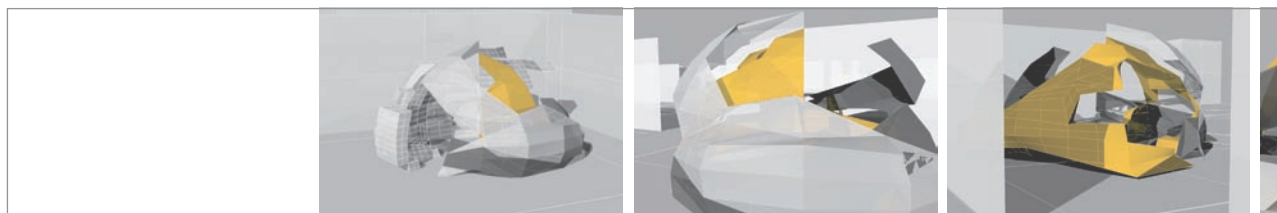


"elements as room"
considering the box-on-box principle



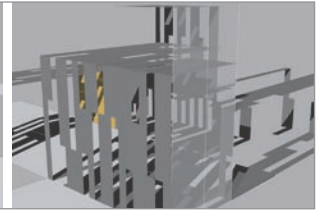
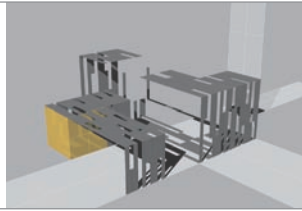
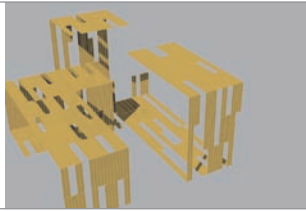
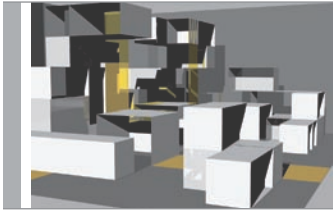
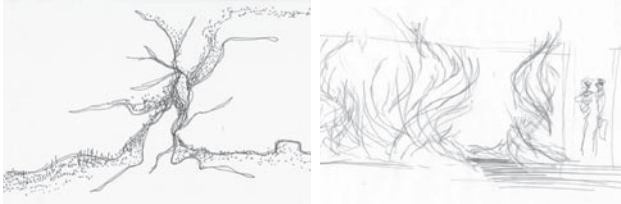
creating a specific path and movement

two structures occurring creating a
room-in-the-room



"the hard shell and soft inner"

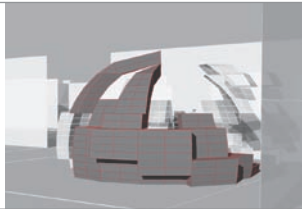
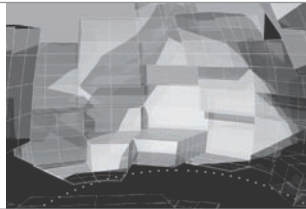
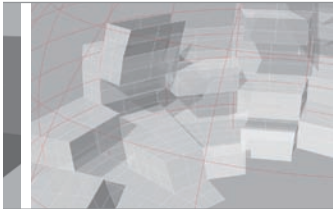
DESIGN PROCESS . INITIATE CONSIDERATIONS



beginning to work with perforation and light

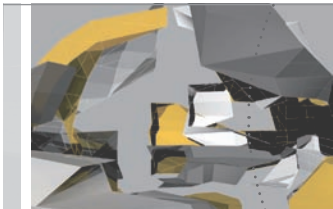
adding the fabric as an important element merging floor and ceiling

"surface treatment and tactility"

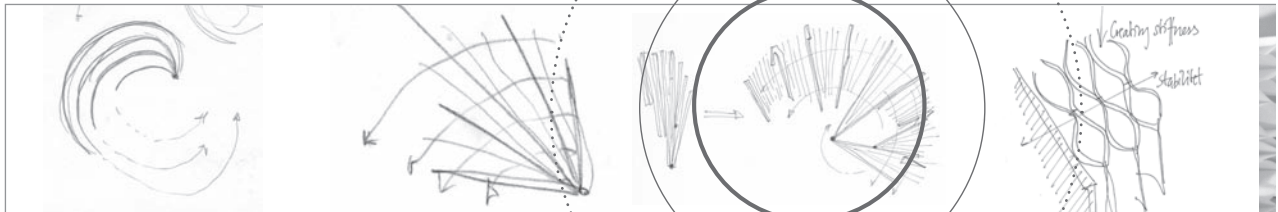


"interior landscape"

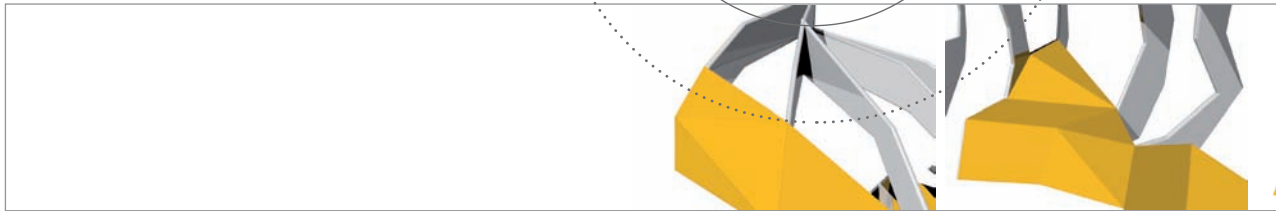
the idea of one furniture element develops



the furniture is created by three folding shells



"deployable structure"



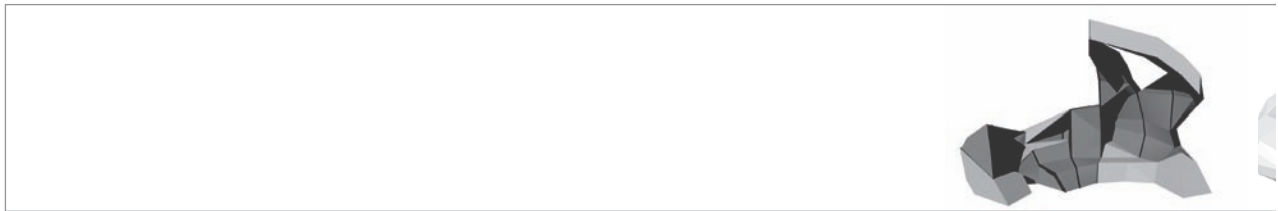
"tableware as landscape"



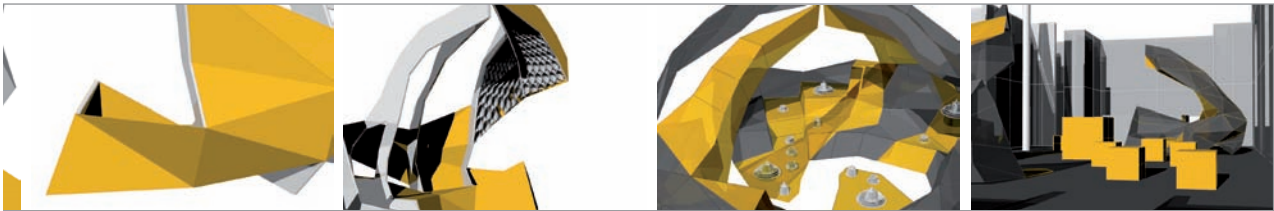
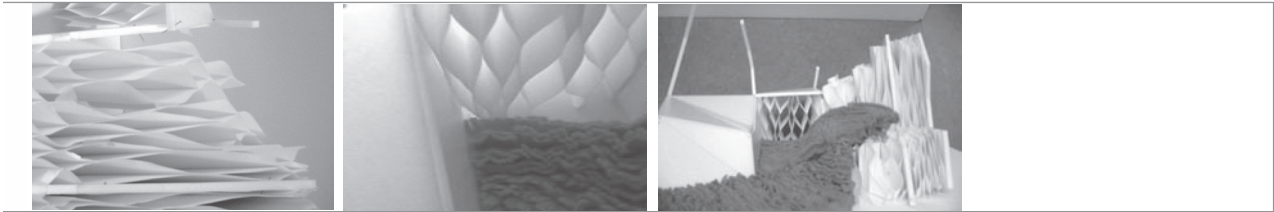
"surface treatment"

investigating effect of accoridon folded
felt structure

the meeting of felt carpet and folded
flet is detailed



DESIGN PROCESS . DETAILING



"structure"



"kitchen"

DESIGN DEVELOPMENT . SUB CONCLUSION

Based on the theoretical framework developed in chapter 6 a proposal for a Millennium Triclinium has been developed. A project consisting of one primary furniture module and one kitchen element, together forming an architectural setting; *staging the Figgjo meal experience*.

The main challenge of the actual design task was relative to the initial problem formulation the desire for a combined showroom and food event facility being able to transport and assemble by very few means, while simultaneously providing a highly sensuous and intriguing space around the promotion of the Figgjo chinaware.

The design development has been highly motivated by my relationship to the gastronomic field and I have deliberately sought to develop a theoretical design strategy of architecture as staging, emphasising the relationship of architecture, food and performance in the creation of architectural settings. This is done through the introduction of five key aspects: *context, narrative, scale, detail and experience*.

Based on the five aspects together forming a general strategy for approaching the architectural staging of meal experiences, the project have endeavoured a specific application of this theoretical framework through the development of the Millennium Triclinium, consequently a contextualisation of all five aspects. The contextualisation of the theory initially led to the formulation of five specific design parameters; *path, landscape, grotto, surface and display*. In extension of the ensuing consideration of specific functional aspects, programming, scenario, users, and purpose, led to the definition of two specific scenarios and purposes being; the showroom facility at the Hotelympia trade fair, and the food event at Gastronomisk Institut in Oslo during the spring 2008. Here the outlining of the different users (Figgjo, chefs, consumers, and retailers) together with the main purpose of the promotion of Figgjo chinaware led to the formulation of the narrative "*elements as room*" and the use of chinaware as interior landscape. To create elements of surprise I focused on how to invite for exploration of space and chinaware as well as motivate development of new products. The narrative "*elements as room*" further merged the aspect of scale and the use of landscape, building, room, furniture, tableware focused on both the serving and the intake of food during the two different scenarios; constituting an interior landscape staging the Figgjo meal Experience.

The architectural shaping of the proposal takes its point of departure in the shape of the grotto and converts it into a configuration of two identical deployable furniture structures creating an internal and embracing room within the overall room, around the promotion of Figgjo chinaware. On the outside the setting is strongly characterised by the fragmented, hard metal surface and the pattern occurring with the accordion folded felt, adding a sensuous play of light and shadow

FOOD + ARCHITECTURE + PERFORMANCE

"creates experience"

DESIGN STRATEGY: "ARCHITECTURAL STAGING OF FISSJO CHINA"

- Narrative: Surprise → Interior landscape, elements as room
Intention → promote china + create new perspectives
Course → create attention + invite for exploration
- Context: Scenario → Gastronomiske lushitut, oslo
purpose → Hotelympia, London
users → food event + show room
- Scale: "Room in room" → merging food, tableware, furniture,
relation to body → room + landscape
touch + close-up
- Detail: transportation + assembly ⇒ deployable
- Experience: movement, touch, scent, taste, sound, sight, surprise

DESIGN PARAMETERS:

PATH, LANDSCAPE, GROTTO, SURFACE, DISPLAY

DESIGN PROPOSAL:

MILLENNIUM TRICULIUM

to the comprehension of the shape. On the inside the felt structure literally unfolds an interior landscape covered with a thick felt carpet growing across the floor, into both furniture and ceiling, while facilitating the display of china, or inviting for sensuous touch and embracement among reclining diners during food performances. The setting is further characterised by the creation of a specific path, revealing a precise orchestration of different levels of detail in surface, textures and treatments. This setting alters perspectives on scale of tableware, furniture, and architecture, as well as invite for new perspectives on the use of Figgjo chinaware; poetically, experientially as well as technically.

The concept of the “landscape” is formed by a series of frames unfolding an accordion felt structure held in place by a number of aluminium plates, together forming a constructional interrelation; a future grotto revealing its tasteful treasures in glimpses as you pass by. This is a reference to the area around the Figgjo factory, strongly characterised by dark mountains, forests and diffuse light occurring during winter times. The proposal for the Millennium Triclinium not only suggests a close relation between architecture, tableware and food as stated in the theoretical part, but further endeavours a fusion of technical, experiential and sensitive aspects as a methodology in the development of architectural settings.

The design strategy is thereby with the development and implementation of the five design parameters into a specific proposal for the Millennium Triclinium, transformed and materialised. Finally providing an actual design proposal based on the theoretical exploration on the relation of food and architecture to create physical space and provide multi-sensuous meal experiences. This leads to the final concluding perspective on the project as a whole, evaluating the endeavoured interrelation of theory and practice in an architectural staging of meal experiences:

CONCLUDING PERSPECTIVE

The main purpose of present project has been the development of a specific design proposal for an architectural setting; a *Millennium Triclinium*, staging the promotion and experience of Figgjo chinaware. This task takes its point of departure partly in a personal curiosity and interest towards the interrelated field of architecture and gastronomy, but also in a specific desire expressed by Figgjo to initiate a discussion about relations of food and tableware design. This project holds a specific practical dimension endeavouring the development of a showroom and food event facility, encouraging professional chefs and restaurant diners to explore the Figgjo chinaware. Furthermore a theoretical dimension has endeavoured an understanding of the interrelations of food and architecture in general.

Based on this two-sided task the idea to engage in respectively a theoretical study investigating the role of architecture in the meal experience, and a design part developing a specific proposal for the Millennium Triclinium for Figgjo arose.

With the involvement in a theoretical study my intention was to investigate the inherited relationship of architecture, tableware and food. But furthermore on this basis, formulate a specific design strategy towards the development of a design proposal for the Millennium Triclinium, endeavouring an interrelationship between theory and practice. The theoretical part thereby initiates the approach towards the final architectural design. In continuation hereof the design part becomes a specific proposal on how to implement theoretical knowledge derived on the relationship of architecture, tableware and food.

With the theoretical part I initially approached the question on the role of architecture in the public meal experience through an outline of historical settings endeavouring meals by means of architecture. This led to an examination of grand European banquets dating back to the high rise of the Roman Antique and forth to contemporary restaurants, engaging more elaborately in a case study on specifically Hadrian's Villa 118 AD and the Danish restaurant Madeleines Madteater. In relation hereto theoretical studies were conducted on the meal aspects formulated with theories by respectively Korsmeyer and Meiselman. As part of this, further considerations on sensory and consumer science as well as the aspects of spatial setting's impact on the meal experience were elaborated with the models of Furst et al. and Delizia & MacFie. Hereby stating that physical appearance, through for instance product brand, labels and form can affect the expectations and levels of satisfaction in consumer food choices. However, the food scientific field had no answers as to whether the same results could be applied with regards to the impact of architecture? This led to further studies on the perception of space as means to understand design and architecture's impact on the meal experience as well.

The chapter on space perception was based on the theories of phenomenology and semiotics formulated by Pallasmaa, Hall, Merleau-Ponty, Eco and Barthes, and led to the conclusion that architecture, plays a crucial role in our bodily comprehension of a meal. Also that architecture as well as food is strongly intervened with both contextual and social aspects through the luring of the senses and revealing of past memories and experiences. In relation hereto the word *experience* became a key-word in the formulation of three design steps toward the final proposal for the Millennium Triclinium.

- The first step was the formulation of an overall design strategy; *architecture as staging*, representing a general approach towards the relationship of architecture and food, where especially the joining of food, architecture and performance, becomes means to create the multi-sensuous experience. In this union architecture embraces food and performance, hence stages the entire meal. But without the aspects of food or performance, architecture loses its ability to fully stage the meal. Consequently both the sense of taste and live performance are to some extent needed to fully achieve a multi-sensuous architectural experience.

In relation hereto the development of the design strategy further led to the formulation of five design aspects; narrative, context, scale, detail, experience. - Together forming a general proposal for how to approach architectural staging of meal experiences. The design strategy of architecture as staging and its five design aspects were then applied to the specific task of designing a Millennium Triclinium for Figgjo. By interpreting the *context, narrative, scale, detail and experience* with regards to the promotion of Figgjo chinaware the five design parameters; *path, grotto, landscape, surface and display* were developed. And with the design part those five design parameters were implemented in a specific proposal for the Millennium Triclinium, seeking to combine the use of the showroom facility with an eventful and performative eating environment by means of merging the intentional narrative on china as abstract sculpture with the notion of architecture in scales of both landscape, room and furniture.

Looking back, I started out on an abstract basis asking my self if there was at all a relationship between food, china and architecture? This quest led me across first and foremost sensory science and phenomenology, engaging in the elaborate understanding of the experience from both an architectural and food scientific point of view. Furthermore the study on the relationship of architecture, tableware and food led me across a wide range of scientific fields; engaging besides architecture and sensory science, the fields of philosophy, history, sociology, and consumer choices. The main task has been to try to fuse these interrelated fields and complete the theoretical argumentation for the interrelations and inherited meanings of both architecture and food in a specific design proposal for a Millennium Triclinium. Many of the aspects defining the experience of respectively food and architecture are intangible phenomenological matters, and

neither contemporary food science nor architectural theory reveals the full extent of this.

By working with food as a subject I have challenged architectural form by combining technique and practice, and letting the taste for gastronomy give the necessary power to explore the space. Knowing this I perhaps rather foolishly still chose to work both theoretically and practically on the cross-disciplinary field of architecture and gastronomy. And I did so with the strong persuasion of opening perhaps just a small door towards a future interest in the research area of architecture and food.

Since, not every one of us is a chef, we do however most of us still daily arrange food on our individual plates; intuitively arranging the different food elements in a certain order and relation to each other. With this act we are all designing “tablescapes” relating the comprehension of architecture and design as staging with food and tableware.

With present thesis I wanted to define the intriguing relationship of architecture, tableware and food theoretically, and by means of a specific design proposal for the Millennium Triclinium, prove how the interrelated scales of architecture and food can be utilised not only to create sensuous experiences around the promotion of chinaware, but further initiate social and cross-disciplinary relations. With the idea of architecture as staging, this is carried out through the proposal for a deployable small-scale setting, utilising the sensuous perceptions on different surface treatments and bodily engagement to create both physical and meta-physical dimensions in the experience of Figgjo chinaware. The act of physical contact and the ability of core senses as touch, taste and scent to establish mutual bounds between consumers and products has been utilised to create a setting, where the orchestration of space, form and choice of material allow for a slow travel and exploration of china through elements of surprise and the event of unexpected interaction.

Present project has thereby proved that a relationship can be identified between architecture and food. And most importantly can be used to provide perspectives on the comprehension of architecture, food and tableware, taking you beyond the level of consciousness and into a world of desires, dreams and memories.

And with this I will leave the last word to chef Antonin Carême:

“The fine arts are five in number, namely; painting, sculpture, poetry, music, and architecture, the principal branch of the latter being pastry”

*by Antonin Carême
(Korsmeyer 1999:121)*

Fig. 11.4

“The Chef”

*Rasmus Kofoed, one of the
Judges at the Danish pre-
qualification rounds for Bocuse
d’Or Europe 2008.
(Food College Denmark, photo
by Lasse Wind)*

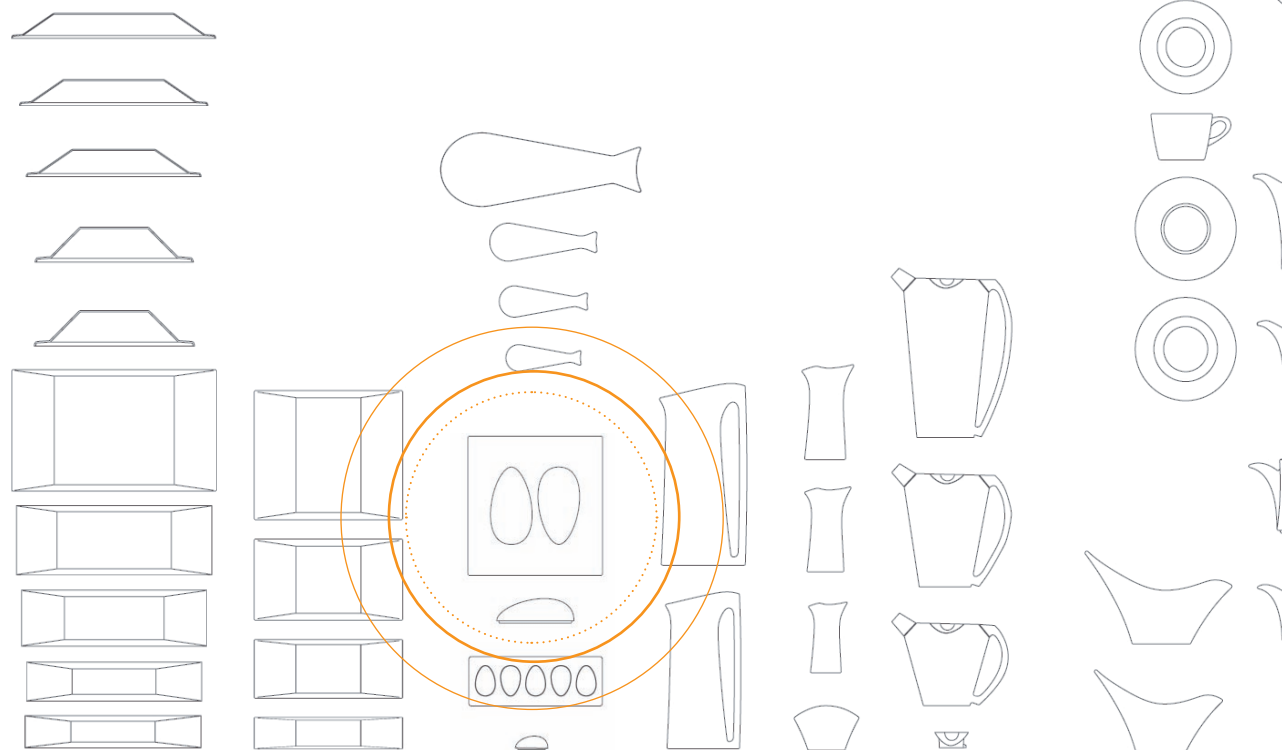


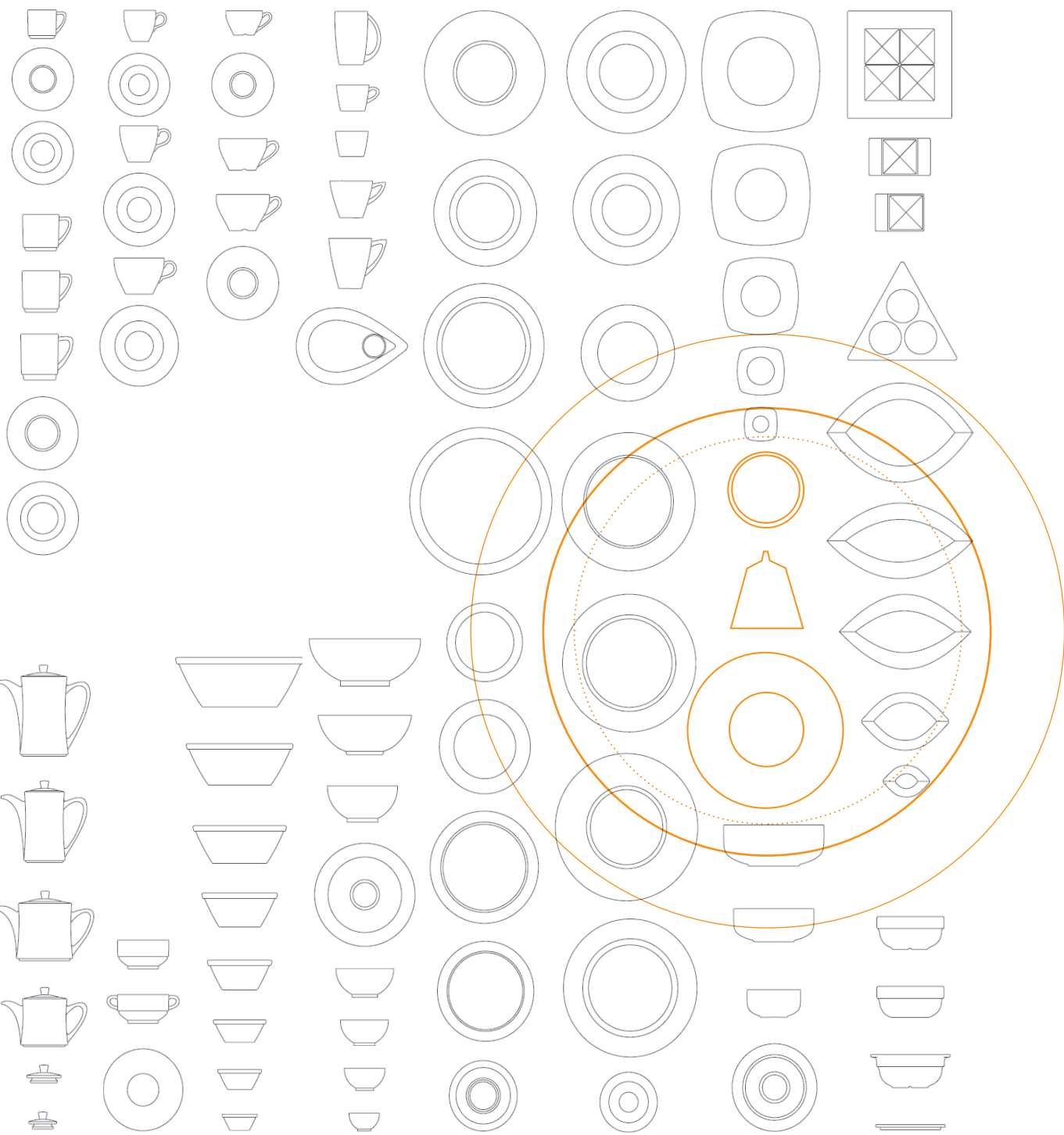
APPENDIX

MILLENNIUM TRICLINIUM



Appendix A1 FIGGJO . **RETHINK CHINA**







FIGGJO . PROFILE

Figgjo is a relatively small company of 150 employees established in 1941 and located outside Stavanger in Norway. Originally the Figgjo factory evolved out of an electric power plant; Figgjo Kraftselskap AS, dating back to 1918 and utilising the water leftovers from the power plant and local clay to produce earthenware. However, during 1941-1946 Figgjo turned towards tableware production and started out mainly producing ceramics for private households by use of external designers. In 1955 the private field experienced stagnation in china production and as a result of this stagnation Figgjo in 1960 decides to convert to vitreous china instead, which is still used today. As part of this change to vitreous china the designer Ragnar Grimsrud completes his development of the first professional Figgjo series; the Figgjo 35 series directly approaching the food service business. Figgjo 35 is a series with all the functional characteristics demanded by food services; stacking, narrow rims, large eating surfaces and gutter rims, and together with its clean geometrical lines it wins the Norwegian Design Award in 1969. With this acknowledgement Figgjo established their position as key supplier to the professional food service market and still today the Figgjo 35 series is one of the series of highest demands, and can be experienced in several public cafeterias, institutions and workplace-canteens around all of Scandinavia. (Rosenberg 2001)

During the 1980s with the employment of designer Olav Joa and the development of the Figgjo series; Classic (1987), Relief (1987), and Plaza (1988), Figgjo enters an epochal era where products are taken from pure functionality into considerations on excitement, originality and timeless idiom. - Plates are made lighter in weight, new cups and other accessories are developed for food service markets and export markets, and finally the simple use of relief patterns in the china as a modern alternative to the usual painted décor which easily divert perception of the food, gains high attention from the professional chefs. (Rosenberg 2001)

>> Figgjo enters an epochal era where products are taken from pure functionality into considerations on excitement, originality and timeless idiom.

<<



Figgjo Verde

Figgjo Front; Egg

Figgjo Front; Platform

Figgjo Front Dining

FIGGJO TIMELINE

Fig. A1.1

Figgjo constantly seeks to challenge ordinary conventions within tableware. This has evolved throughout time especially marking changes in strategy with the products; Figgjo 35, Figgjo Front, and Figgjo Front Dining. (Rosenberg 2001)

Since 1996 Figgjo's production has primarily approached the professional culinary businesses as restaurants, institutions and workplaces, and during the 21st century with the development of the Figgjo Front series, Figgjo is heavily expanding into new markets as the UK, Germany, and Japan.

DESIGN STRATEGY AND PRODUCTION

Contrary several other international china companies and despite the higher expenses, Figgjo gathers all of their production, administration and product design departments in one place at the factory in Stavanger, Norway. The joining of all factory departments in one place allows for a wide internal-collaboration across production lines and design fields, as well as provides a natural connection between the design phases and the actual implementation in production when developing new tableware. A relatively small but well planned production line, incorporating a high level of flexibility further provides the designers with the ability to understand, challenge and try-out preliminary ideas before finishing products for production, this without cutting of the standard production of china. (Figgjo, January 2008) Figgjo's relatively small production line and strict focus on the niche production for professional use, guided by some common company concerns about functionality, quality and flexibility allows for a high level of adaptability in design and special décor, because of the ability to convert and adapt to different production orders. This ability furthermore together with the above mentioned opportunity of experimentation within the actual china production and fabrication gives the designers possibilities of developing and testing new forms, methods and materials outright. This ability to try-out prototypes and the close contact to the product department is what furthermore allow Figgjo to deliver special ordered products in small amounts within a relatively short period of time, which I think must be considered a huge

advantage in contemporary china markets competition for individual expressions and tailored china solutions especially within the finer dining businesses.

One of Figgjo's trademarks is the close internal collaboration at the factory and the exclusive close relationship to the Scandinavian Culinary Teams and other professional elite chefs across Norway and Denmark. With this unique collaboration between manufacturer and user, Figgjo gains an insight and knowledge in the specific use of the tableware which not only provides a better understanding of functionality and aesthetic needs, but furthermore allows for sessions of input which are valuable for future product developments. Figgjo with the close collaboration to the direct consumers markets constantly seeks to alter the perception of tableware, and the goal of Figgjo china has therefore especially with the two newest product lines; Figgjo Front and Figgjo Front Dining, not only been to provide functional china for the professional business, but perhaps most importantly also to inspire chefs and professional kitchens for innovation, creativity and potentially see new uses of china and tableware via Figgjo products. (Figgjo, January 2008) Figgjo, to me, represents an extraordinary union of cross-disciplinary work between factory departments and consumers, and becomes an example of how an understanding of integrated design on levels of function/use, appearance, technique and production. This contributes to a spirit of great flexibility and synergy in technical adjustment and potential exploration or try-outs of new chinaware.

The revival of china and tableware with Figgjo products has so far led to deliveries for both Arabian luxury hotels and several professional kitchens and restaurants all over Europe, and Figgjo according to themselves puts a great honour in continuing to provide cutting edge china, seeking to fulfil professional needs on levels of both fine dining and institutional use.

PRODUCTS

As mentioned above, Figgjo constantly seeks to challenge ordinary conventions within tableware by creating innovative products for the professional kitchen. With the parole; Rethink China, Figgjo's products combine design and functionality in new ways and seeks to provide an experimental arena unfolding the culinary creativity and inviting for surprise, entertainment, astonishment and seduction of the diners.

Back in 1961 with the Figgjo 35 series, new standards were set with the development of a characteristic series of china, allowing for rough handling and use of industrialised machines, as well as simultaneously providing a rather small series of standard sizes and classic timeless typologies allowing for a great flexibility in addition and combination across individual products. At that time china for

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Fig. A1.2

Above: Figgjo 35 series

Middel: Figgjo Front Dining

Bottom: Figgjo Front series with
Figgjo Hval, Figgjo Planet, Figgjo
Form Tray, Figgjo Pyramide.
(Figgjo brochure)

the food service business was mainly about fulfilling the demands for stacking, handling, durability, and dining functionality. The Figgjo 35 series as such revolutionised the professional market by offering a rather modern but simple expression and a relatively low cost china regarding the high levels of design quality and functionality.

Today the product line; Figgjo Front, represents a new initiative within the product development of Figgjo china and emphasises the parole; Rethink china, by avoiding the ordinary series of china elements within similar styles as seen with for instance the Figgjo 35. Instead the Figgjo Front series presents a wide range of approximately 22 individual elements, each challenging the ordinary comprehension and use of china and tableware, by playfully provoking the archetypal form and thus potentially enhancing the presentation and experience of the food. The idea behind the Front-products is the intuitive use of form in scales of tableware and the playful considerations of stretching the material and technique to its outmost to create new surfaces or cavities for arranging and presenting the food. Each product stand in its self but can also be used as supplements to other existing series or Front elements. (Figgjo, January 2008)

One of the more technical but also design related challenges with the Figgjo Front products, has been the possibility of isolating specific tastes, temperatures or food elements on the same plate, as well as providing enlarged volumes and surfaces. This has for instance with several of the products led to an exploration of traditional ways of eating and arranging food, thus inviting for different eating experiences by for instance raising the plate surfaces higher above table level, enlarging sizes to maximum production levels or playing with height combinations as with the Figgjo Platform which almost assembles building bricks, or by using forms as pyramids, a whale and eggs to create a mystic sense around the serving of the food. (Figgjo, January 2008)

An example of exploration of china, as well as the close collaboration with elite chefs, is the development of the Figgjo Front product; the Egg, being exclusively designed for the Danish restaurant; Restaurant Koch in Århus, run by the twin brothers Michael and Jesper Koch. Originally the egg was to be a unique product developed especially for the opening of the restaurant Koch and strongly resemblance the symbolic of owners and chefs being twins simultaneously as providing some of their basic requests for a plate featuring two cavities and lids for surprise. (Figgjo, January 2008) But today the egg is a standard feature in the Figgjo Front series and is used all over the world for several different purposes. Hence the ability and will at Figgjo to allow for exploration and experimentation within unique tableware proves with the development of the egg to also push boundaries at the overall professional market and lead to new standard product developments.

With the newest initiative and product series; the Figgjo Front Dining: Figgjo seeks to fuse and implement the innovative and creative exploration of tableware from the Front series with the traditional tableware series as Figgjo 35 into a contemporary offer on fine dining tableware. Previously the Figgjo series had primarily been focussed towards the average hotel and restaurant business. (Figgjo, January 2008) The Figgjo Front Dining series represents the interpretation of casual dining tableware and prior times offers on chinaware, into fine dining tableware, though, with an informal and modern expression. The 18 products forming the Front Dining series consists of plates ranging from small saucers to grand plates almost being entirely flat and very slim, three sizes of cups and two sizes of lids or covers, forming a complete set of tableware. The Front Dining series represents, in my opinion, with the slim structure and subtle brim on the plates, some of the finest within Figgjo china both technically and aesthetically. The china furthermore carries on the fundamental ideas behind the other Figgjo series; the high functionality combined with classical timeless shapes and a modern idiom, together forming a rich series of variation and combination possibilities with other products due to standardised sizes and overall aesthetic style.

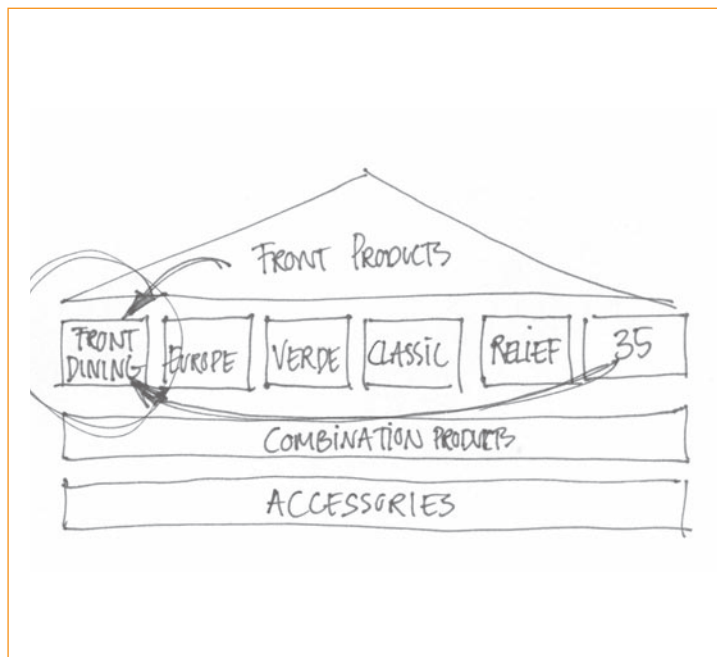


Fig. A1.3

The Front Dining series with its contemporary offer on fine dining tableware, represents some of the finest within Figgjo products; fusing the best principles of the Front series and the tableware series of e.g. Figgjo 35. (Figgjo Strategy, 2007 + Rosenberg 2001)

SUBCONCLUSION

The china by Figgjo is in my opinion mainly focussed around the visual-shapewise appearance, and generally the work with textures and materiality is minimised into the characteristic white, hard, glazed surface of the vitreous china. Unique examples of Figgjo china, however, exists where the careful work with element thicknesses has resulted in slim surfaces providing an almost translucent effect to the white china, allowing for light to penetrate the massive surface and play with shadows and patterns. Furthermore unique examples of complex relief patterns and light incorporated into the china exists as unique products for exhibition or by special offer at the Figgjo factory. (Figgjo, January 2008) Characteristically the Figgjo china is, however, manufactured in white, glazed vitreous china and any decoration besides relief effects are added after the firing and glazing processes. As such it is very few of the Figgjo products which actually incorporate considerations on texture, colour or decoration besides the standardised white expression of Figgjo, and these elements are usually added to the design as external elements, either through the use of colours in brochure materials, or through special décor applied after the glazing process. (Figgjo, January 2008)

In general the majority within Figgjo products draw on the china as sculptural form, creating attention and excitement towards the presentation of the food. As seen from the illustrations Figgjo uses controversial form languages based on strict geometrical shapes to challenge existing tableware archetypes and create perfect settings around professional chef's creativity; thus communicating a high level of elegance by rather simple and precise means. Several of the Figgjo Front products furthermore, in my opinion, utilise and elaborate on the aspects of "centre pieces" described in the historic preview in the theoretical part (see page 31), working with the artistic presentation of the food and comprehending the plate as part of the table or even room décor. The idea of china-on-china, creating grand structures or landscapes around the food can be recognised in several of the products; Figgjo Form Tray, Figgjo Platform, and a lot of the plates – for instance the Figgjo Europe series or the new Figgjo Front Dining series. The higher intention of Figgjo could be said to invite for new and different uses of china and tableware through the different use of shape and form. This is further underlined with the brochures published by Figgjo, where the china deliberately is shown cut off from surroundings, people and food, and instead appear as pure aesthetic form not even suggesting scale or use, but allows the spectator to derive the potential functions themselves. – An element can be a plate, a dish, a saucer or even a bowl; it is up to the individual imagination to decide the specific use of each element. The products of Figgjo thereby provokes or evokes creative thoughts about what to cook or how to use the china, and further emphasises the focus on the form and the aesthetics of the form as an additive series of architectural elements.

>> Figgjo Front products utilise and elaborate on the aspects of "centre pieces", working with the artistic presentation of food and comprehending the plate as part of the table or even the room decor... The idea of china-on-china, creating grand structures or landscapes around the food...emphasising the focus on the form as additive series of architectural elements. <<

APPENDIX A2 . "REMEMBRANCE OF THINGS PAST"

"As I came home, my mother, seeing that I was cold, offered me some tea, a thing I did not ordinarily take. I declined at first, and then, for no particular reason, changed my mind. She sent out for one of those short, plump little cakes called "petites madeleines", which look as though they had been moulded in the fluted scallop of a pilgrim's shell. And soon, mechanically, weary after a dull day with the prospect of a depressing morrow, I raised to my lips a spoonful of the tea in which I had soaked a morsel of the cake. No sooner had the warm liquid, and the crumps with it touched my palate than a shudder ran through my whole body, and I stopped, intent upon the extraordinary changes that were taking place. An exquisite pleasure had invaded my senses...


And suddenly the memory returns. That taste of that little crumb of Madeleine which on Sunday mornings at Combray, when I went to say good day to her in her bedroom, my aunt Léonie used to give me, dipping it first in her own cup of real or of lime-flower tea...

And once I had recognized the taste of the crumb Madeleine soaked in her decoction of lime-flowers which my aunt used to give me, immediately the old grey house upon the street, where her room was, rose up like the scenery of a theatre to attach itself to the little pavilion, opening on to the garden, and with the house the town, from morning to night and in all weathers...

all the flowers in our garden and in Mr. Swann's park, and the water-lilies on the Vivonne and the good folk of the village and their little dwellings and the parish church and the whole of Combray and of its surroundings, taking their proper shape and growing solid, sprang into being, town and gardens alike, from my cup of tea."

(Essential parts from Marcel Proust, Remembrance of Things Past. In; Moncrieff, 2006:61-64)

APPENDIX A3 . FIGGJO TABLEWARE

	length	width	height	product name
	26.5 cm 34.0 cm 26.5 cm	26.5 cm 34.0 cm 26.5 cm	4.0 cm 1.8 cm 4.0 cm	Figgjo front Figgjo Pyramide Figgjo Flat Figgjo Egg
	42.0 cm 53.0 cm 59.5 cm	12.0 cm 32.5 cm 33.0 cm	2.2 cm 6.0 cm 10.0 cm	Figgjo dishes Figgjo Plattform Figgjo Gastronom Figgjo Form Tray + Lid
	41.0 cm 33.0 cm 58.0 cm	15.0 cm 18.0 cm 24.0 cm	2.8 cm 5.0 cm 7.0 cm	Figgjo trays Figgjo Kurve Figgjo Baat Form Figgjo Hval
	4.7 cm 26.0 cm 27.5 cm	4.7 cm 26.0 cm 27.5 cm	4.7 cm 26.0 cm 27.5 cm	Figgjo accessories Tannpirke holder Figgjo Spir Kanne Figgjo Spir Mugge
	●	5.8 cm 35.0 cm 40.0 cm	2.0 cm 1.6 cm 5.5 cm	Figgjo plates Figgjo Front Dining 8059 Figgjo Front Dining 8000 Figgjo Planet 40
	●	5.8 cm 9.9 cm 15.2 cm	5.2 cm 7.6 cm 14.0 cm	Figgjo cups Figgjo Front Dining Kopp Figgjo Front Dining Kopp Figgjo Front Dining Cloche
	●	25.5 cm 27.5 cm 41.0 cm	14.0 cm 9.4 cm 8.7 cm	Figgjo bowls Figgjo Bowl Figgjo Stablebolle 1816 Figgjo Svai

APPENDIX A4 . TRADE FAIR REGULATIONS

Based on the regulations of the Norwegian trade Fair in Stavanger (essential part from: www.messe.no);

Stands

One can choose between open stands (three or four sides open) or shell stand (two or one side open). The organiser often provides both open space and shell stands with a Foga system – a steel structure allowing for partitioning between the different stand areas. Constructing a wall which faces corridors are not permitted. The maximum building or construction height for stands and banners are 2.5 metres. An application can be pursued allowing for taller stands, as well as stands with ceilings or two stories can be allowed with special permission.

Floorings

Standard floorings at trade fairs are usually concrete perhaps covered with boards, carpeting, linoleum etc. – bottling machinery or decorations to the floor, walls, pillars or ceiling is not permitted. The maximum permitted floor load in the halls is furthermore: 750-2.000 kg/sq.m

Fire

Having a ceiling or closed off structure demands for a sprinkler system for the area below the first floor/ ceiling. Inflammable temporary furnishing, decorations and carpets must be fireproofed. Easily ignitable and combustible materials must not be stored or used on the premises without an express permission. Smoking and use of fire or naked flames on the premises is forbidden. Fabrics stretched directly on the walls must be fireproofed with approved fire-resistant textile impregnation. The use of straw, polystyrene, paper, cardboard, sacking or other easily ignitable decorative materials is not permitted without express permission.

Power supply

The distribution voltage is 3x400 volts TNC-S/50 Hz – which means available voltages are three phase 400V and one-phase 230V. No emergency generators or interruptible power supplies are available in the event of power cuts. Normally the power is cut off after opening hours, so if continues power supply is need an application must be filled out.

Areas used for exhibitions and other activities of limited duration are subject to the regulations on low-voltage electrical installations. Any work must be carried out by an authorised electrical contractor if not fulfilling the regulation demands. Equipment connected must fulfil the European EMC directive and be CE-labelled.

Fig. A3.1

Table outlining the overall maximum sizes of Figgjo tableware. (Figgjo brochure)

APPENDIX A5. STRUCTURAL CALCULATIONS

The main system of the proposed structure for the Millennium Triclinium is based on the idea of an expandable “fan-structure” able to unfold into the shape of the furniture module (see figure A5.2). The overall structure consists of ten vertical plywood shear walls, a felt structure placed in-between, and a series of bended aluminium plates fasten to the plywood walls, as to obtain stiffness in the horizontal direction.

To obtain a sufficient solution for the final design proposal for the Millennium Triclinium, it is with the development of the fan-structure as a constructional system necessary to examine the conditions of especially assembly and transportation, as well as of course the ability of the structure to carry the loads impacted. As part of the considerations regarding assembly and transportation, my initiate idea of using plywood for the structural shear wall elements can prove to be too heavy to handle for a limited number of persons, without further machinery during set-up sessions at for instance trade fairs and food events. Therefore, a further examination on the overall weight and volume relative to the transportation of the structure is needed to determine whether plywood is the right material or not for the construction of the fan-walls. This is done in the following pages.

Besides the ability to handle the structure during transportation and assembly, the actual stability of the structure further needs to be investigated. Looking respectively at the overall shape of the structure, as well as the section drawings of each shear wall (see figure A5.1) the risk of the structure tipping either backwards or forward occur especially at the section of the cantilevered part and the centre of the structure. This is partly due to the small area of the elements 4, 5, 6, and 7 actually touching the ground, relative to the rather slim and tall shape of the walls. Furthermore each of the walls tends to form a dramatic curve ending in rather “heavy” tips emphasising the ability to tilt further. Therefore overall hand calculations are made estimating whether the specific elements of walls 4, 5, 6, and 7 are in risk of tilting by pure self weight.

Furthermore, the structure and the principle of the “fan-solution” is strongly characterised by the cantilevered part (between plates 7, 8, 9) hanging from the tip of plates 5 and 6. This solution with the cantilevered part hanging in the tip of the structure, only being slightly support from the joints of the hinge with respectively shear walls 5, 6, and 7 can cause concern for the actual stability of the structure, as well as the ability to actually carry the weight of the cantilevered part. Both the walls 6 and 7 are initially rather slim in their appearance, and as neither of them follows obvious regulations in shape towards the obtainment of forces, those walls and the structure supporting the cantilevered part needs further examination relative to stresses and bending.

Fig. A5.1

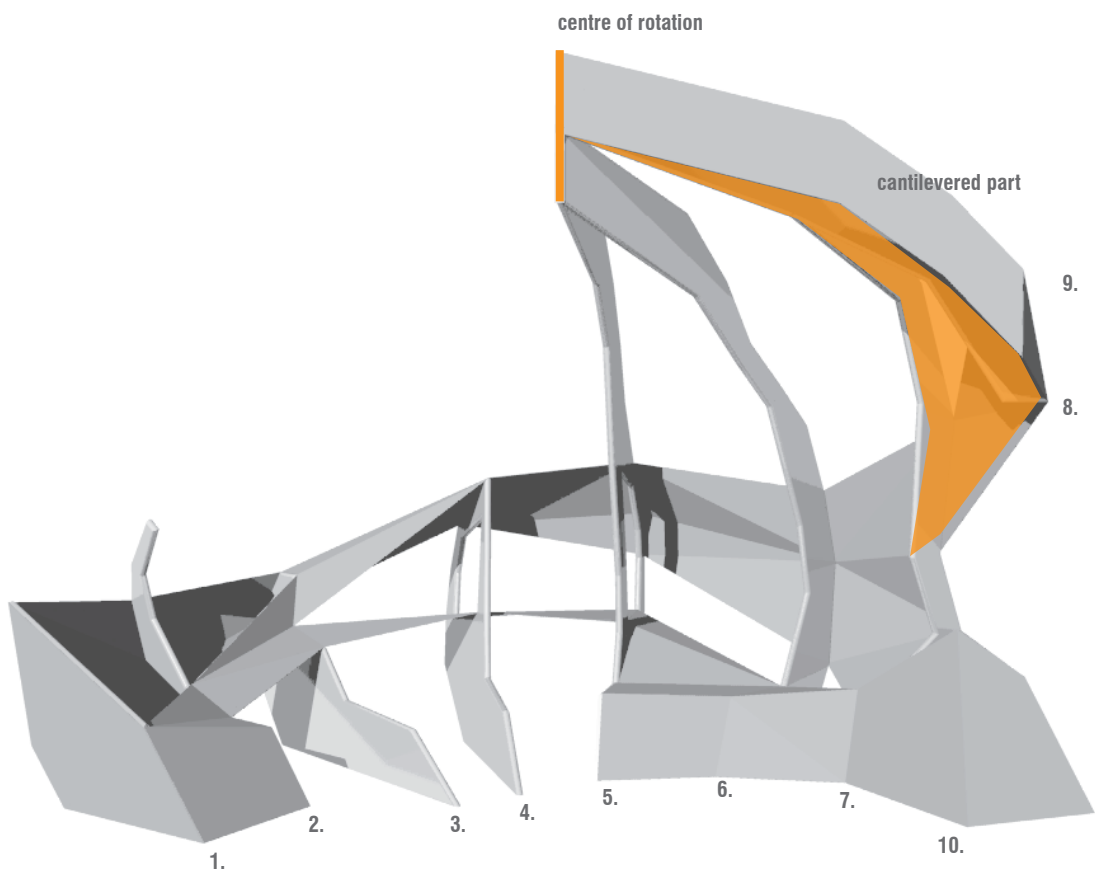
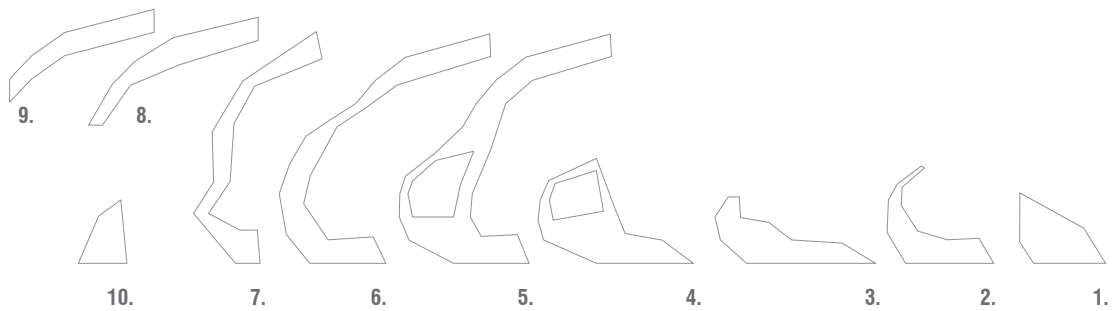
Instability in shear wall shapes

Especially the shear walls 4, 5, 6, and 7 can cause concern regarding the risk of bending or tipping the structure. Furthermore considerations on volume and weight need to be considered for transportation and assembly.

Fig. A5.2

Risk of bending or tipping

The weight of the felt and the cantilevered part possibly causes part of the “fan-structure” to bend downwards or tip backwards. Therefore further considerations on the structure and calculations on the stiffness of the shear walls must be conducted.



Those structural examinations are computed in STAAD.Pro focussing on the deformations in shear wall 6 – which initiatory is considered the plate being in greatest risk of bending or breaking due to the forces and loads of the cantilevered part. This is followed up by hand calculations investigating the worst-case-scenario of the loads and stiffness in the top part of element 6 in varying materials of plywood, mdf, and hard masonite.

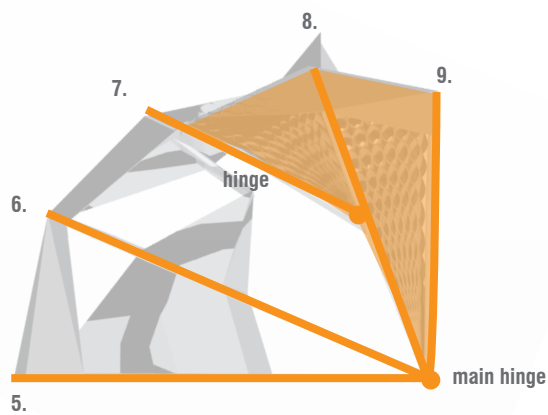
The static investigations with STAAD.Pro offers the possibility of examining rather complex structures, relative to the simple representations put forward with the hand calculations. However, the hand calculations offer a quick impression on the differences between the use in materiale relative to the obtained stiffness and the structural shape. The STAAD.Pro analysis is made in pages 314-319, and followed by hand calculations in pages 320-323.

CONSIDERATIONS ON WEIGHT AND VOLUME

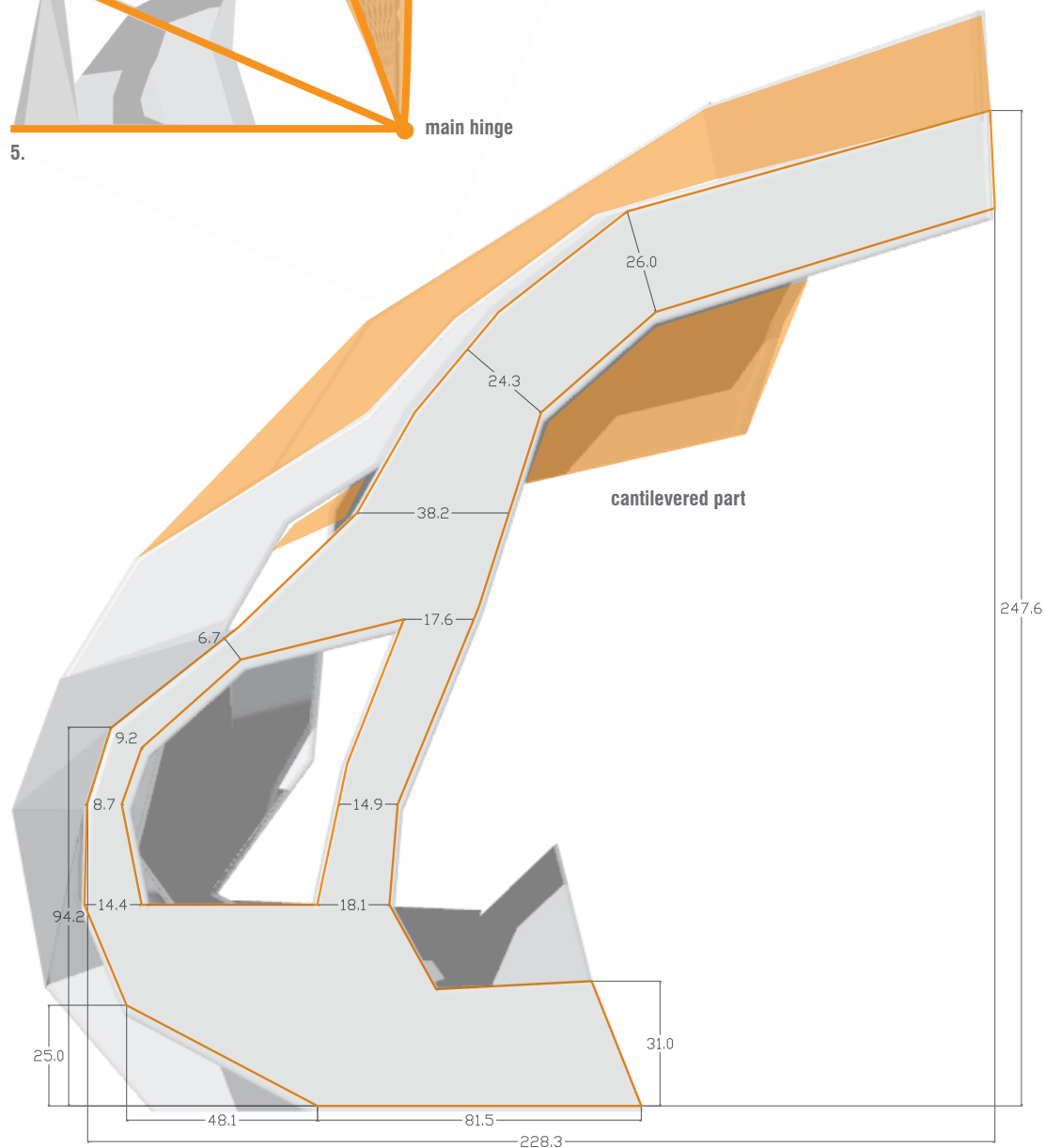
As mentioned in the appendix introduction the main structure consists of ten primary plywood shear walls, carrying an in-between, expandable felt structure and some aluminium plates. The felt structure is supposed to remain fixed to the plywood walls to work as a fan-structure unfolding into the final shape of the Millennium Triclinium, whereas the aluminium plates are intended to be removed during dismantling. The overall weight during transportation is the weight of the ten plywood plates, and the nine parts of in-between felt. A potential solution of transportation could be the possibility of folding-up the entire structure into one piece, being able to handle the main structure in one box, and aluminium plates and the felt carpet in secondary boxes. The dimensions or volume of this box is then guided by the maximum height and length of the elements, as well as the overall width of the plates and felt together. Shear wall no. 5. (see figure A5.3) is the largest of the wall elements with respect to length and height, however, as walls no. 8. and 9. are fixed via a hinge to walls 5. and 6. the height of those determine the overall height of the box. In the following two pages, estimations on the overall weight and volumes are made for the entire structure, both with respect to plywood (30 mm) and masonite (19mm). The reason for this, is together with the succeeding static considerations to be able to discuss greater differences in material use, followed by considerations regarding the handling of the structure in one or two boxes relative to a slimmer solution.

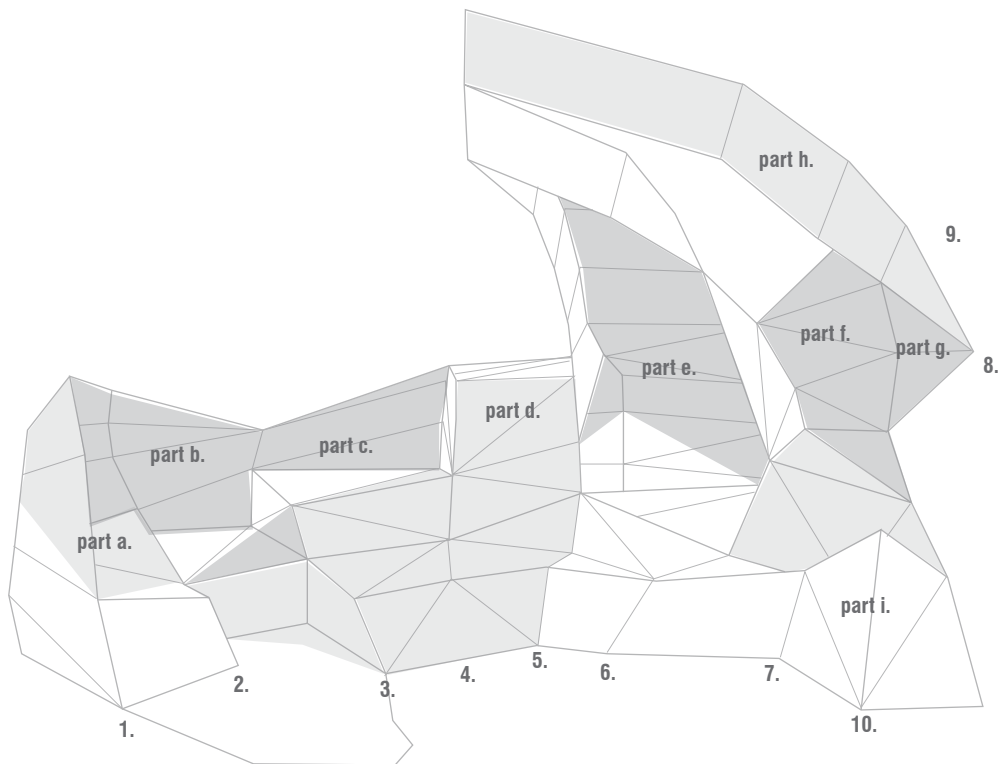
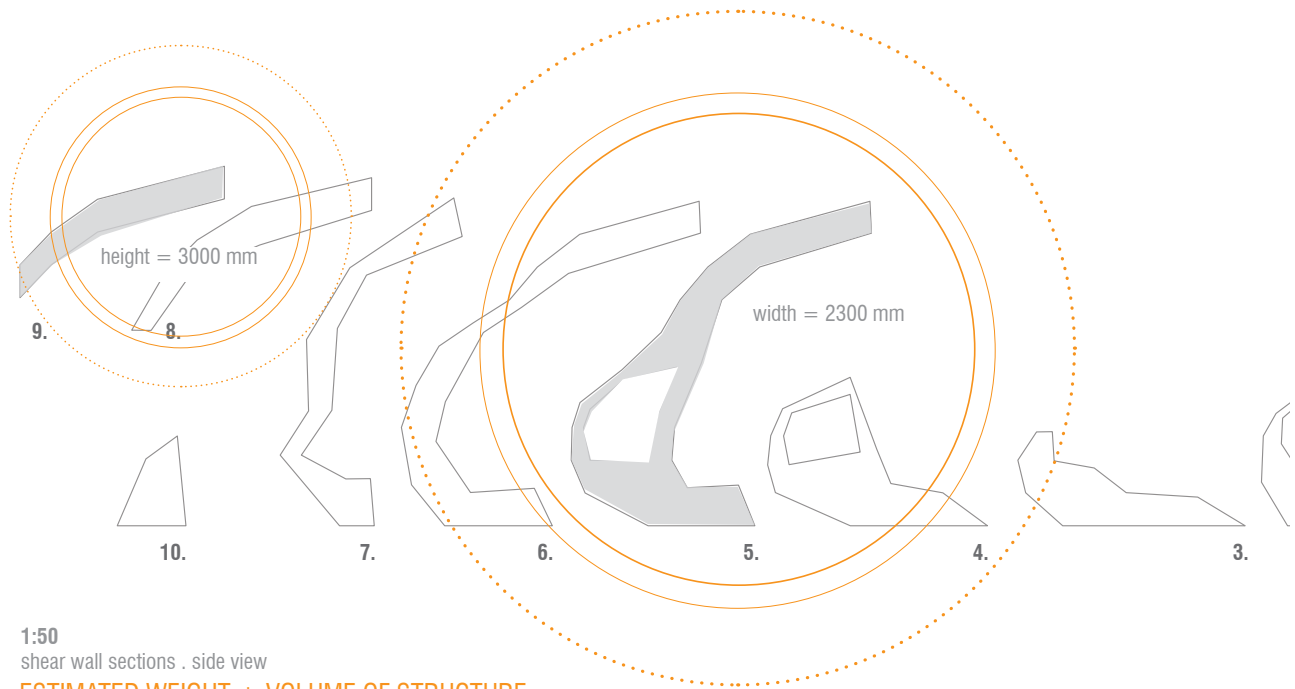
Fig. A5.3

Carrying the cantilevered part
*The cantilevered part is carried
 be the three shear wall elements
 no. 5, 6 and 7, connected
 by respectively a main hinge
 between element 5, 6, 8, 9 and
 a smaller one between element
 7 and 8.*



SHEAR WALL NO. 5
measurements in cm
PLATE SIZE . LARGEST ELEMENT





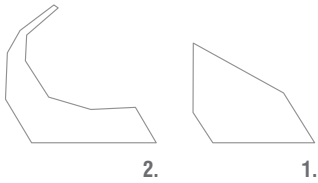


Fig. A5.4

Masonite vs. Plywood

The thickness of respectively masonite and plywood have been chosen from the considerations, that the steel hinges should be "hidden" in the structure, as well as the aluminium plates are intended to be fastened to the shear walls by folding into a slit or slot cut in the back of each wall (details 1:1 in drawing folder), as why the walls demand some kind of physically thickness. Furthermore there is a design-related aspect in visually having the plates occurring with some thickness relative to the heavy mass of felt. Initiate sketches on this matter led to an estimated thickness of 19-30 mm, as with the plywood and masonite.

PLATE AREA

P1 = 0.42 m²
P2 = 0.39 m²
P3 = 0.52 m²
P4 = 0.67 m²
P5 = 1.26 m²
P6 = 0.97 m²
P7 = 0.63 m²
P8 = 0.48 m²
P9 = 0.39 m²
P10 = 0.22 m²

AMOUNT FELT

felt thickness = 5 mm
a = 18 pcs. (90 mm)
b = 16 pcs. (80 mm)
c = 18 pcs. (90 mm)
d = 18 pcs. (90 mm)
e = 18 pcs. (90 mm)
f = 16 pcs. (80 mm)
g = 16 pcs. (80 mm)
h = 12 pcs. (60 mm)
i = 20 pcs. (100 mm)

WEIGHT FELT

felt density = 280 kg/m³
a (0,033m³) = 9.21 kg
b (0,032m³) = 9.07 kg
c (0,050 m³) = 14.12 kg
d (0,056 m³) = 15.60 kg
e (0,073 m³) = 20.35 kg
f (0,038 m³) = 10.66 kg
g (0,024 m³) = 6.79 kg
h (0,026 m³) = 7.33 kg
i (0,004 m³) = 1.09 kg

TOTAL WIDTH = 0.76 m

TOTAL = 94.22 kg

MASS IN MASONITE 19mm

Masonite density = 900 kg/m³

1 (0.008 m³) = 7.18 kg
2 (0.007 m³) = 6.67 kg
3 (0.010 m³) = 8.89 kg
4 (0.013 m³) = 11.46 kg
5 (0.024 m³) = 21.55 kg
6 (0.018 m³) = 16.59 kg
7 (0.012 m³) = 10.60 kg
8 (0.009 m³) = 8.21 kg
9 (0.007 m³) = 6.67 kg
10 (0.004m³) = 3.76 kg

TOTAL WEIGHT = 101.58 kg

TOTAL WEIGHT (+ felt) = 195.8 kg

TOTAL VOLUME = 6.9 m³ (3000 x 2500 x 920 mm)

MASS IN PLYWOOD 30mm

Plywood desity = 480-600 kg/m³

1 (0,013 m³) = 6.24 kg- 7.80 kg
2 (0,012 m³) = 5.76 kg- 7.20 kg
3 (0,016 m³) = 7.68 kg- 9.60 kg
4 (0,020 m³) = 9.60 kg- 12.00 kg
5 (0,038 m³) = 18.24 kg- 22.80 kg
6 (0,029 m³) = 13.92 kg- 17.40 kg
7 (0,019 m³) = 9.12 kg- 11.40 kg
8 (0,014 m³) = 6.72 kg- 8.40 kg
9 (0,012 m³) = 5.76 kg- 7.20 kg
10 (0,007m³) = 3.36 kg- 4.20 kg

TOTAL WEIGHT = 86.4 kg- 108.00 kg

TOTAL WEIGHT (+ felt) = 180.62 kg- 202.22 kg

TOTAL VOLUME = 7.5 m³ (3000 x 2500 x 1000 mm)

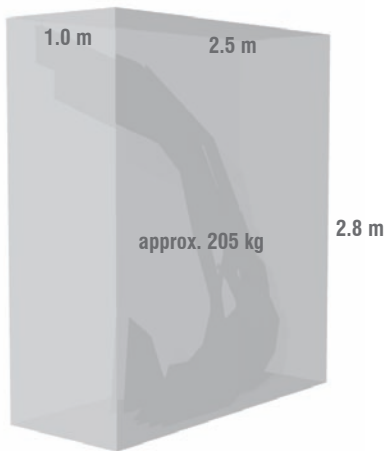
MASONITE VS. PLYWOOS

As seen from the estimations on weight and volume, the difference in using hard masonite or plywood is not significant. However, to fully determine the better material choice from a structural point of view, static considerations need to support the weight considerations (this is conducted in the pages 320.323). By all means the overall weight of the structure in 30 mm plywood is not overwhelming, and approximately 240 kg could rather easily be handled with the support of a pallet jack. Another solution could be to split the structure in two major parts, reducing the weight of the boxes/structure for transportation a bit. This adds to the time used on assembly/dismantling when having to fix the felt between the two parts.

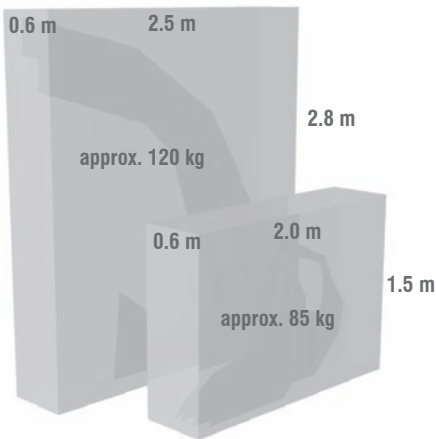
SPLIT MASS IN PLYWOOD 30mm

plates 1-4 = 36.6 kg
felt a-d = 48.0 kg
TOTAL = 84.6 kg

plates 5-10 = 71.4 kg
felt e-i = 46.2 kg
TOTAL = 117.6 kg



all parts connected



structure split in two parts



RISK OF TILTING + SHAPE ADJUSTMENTS?

As previously mentioned parts of the structural shear wall elements shows risk of tilting either backwards or forward by means of displacement of self weight relative to obtaining natural stability. Part of this has been solved by adding extra weight at ground base in shape of three cupboards, also fixing the walls together and creating higher stability in the overall construction. Furthermore the walls 5 and 6 are hinged together at the tip, as well as wall no. 7 is hinged to wall 8, as well as the in-between felt structure and the aluminium plates makes a third connecting stability for each of the shear walls (see pages 305, figure A5.3).

In addition to the above considerations on obtaining stability in the structure, also slight adjustments on the shape of some of the walls can be made. This especially concern the walls 4, 5, and 7 where small adjustments on the "point of rotation" and the size of the area touching the ground level can cause sufficient change in the vertical balance of the plate. However, there is a fine balance in adjusting the shapes to obtain a state of equilibrium and still maintaining the intended expressive form, giving the expression of almost hovering above ground or standing on its tiptoes. In the following two pages, estimations are made on the basis of equilibrium in surface areas around the possible rotation axis, determine changes in shape and vertical stability.

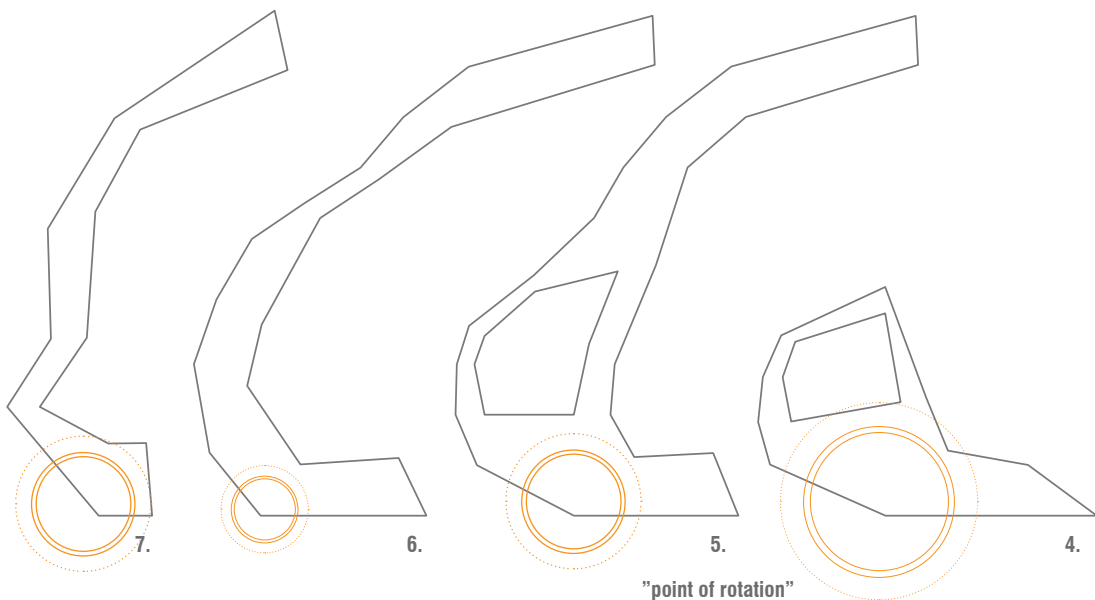


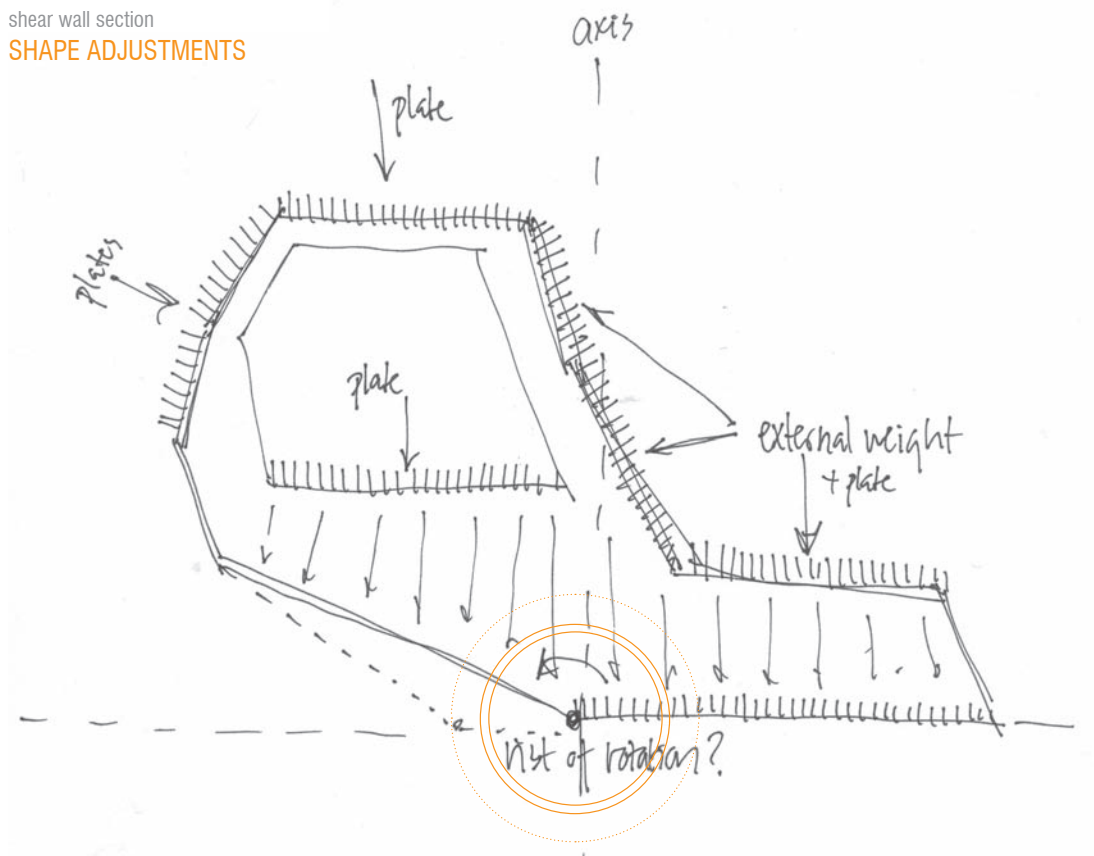
Fig. A5.5

Equilibrium around rotation axis

The risk of tilting either backwards or forward is caused by the moment occurring in the point of rotation. This moment is a result of the displacement of self weight of the plate in different directions than the area actually touching the ground. The moment possibly occurring is depended on mass, size of surface area and the distance from the point of rotation to the centre of mass. Thus by estimating the length from centre of mass to rotation point being equal on each side, you can use the equilibrium in surface areas around the rotation axis to determine wheter the structure tilts or not. As such quick estimations on shape adjustments and risks of tilting can be made by simply comparing surface areas around the axis of rotation. Here the surface area leading the forces directly to the ground should be larger than the remaining surface area, as to avoid moment reactions forcing the element to tilt. In all of the below plates minor adjustments of moving the "rotation-point" 10 -20 cm is enough to obtain equilibrium in selfweight/ area, as why this solution rather than seeking stability in another way is perferred. Furthermore this adjustment adds only very small changes in the overall architectural expression of a "hovering" structure.

shear wall section

SHAPE ADJUSTMENTS



Equilibrium in surface area

plate no. 4

$$A_1 \leq A_2$$

$$A_1 = 4.328 \text{ cm}^2 \leq A_2 = 2.050 \text{ cm}^2$$

Moment occurs creating backwards tilting
Centre of rotation is moved 20 cm

$$A_1 \leq A_2$$

$$A_1 = 3.027 \text{ cm}^2 \leq A_2 = 3.640 \text{ cm}^2$$

The equation is fulfilled and moment occurs
favouring the stability at ground

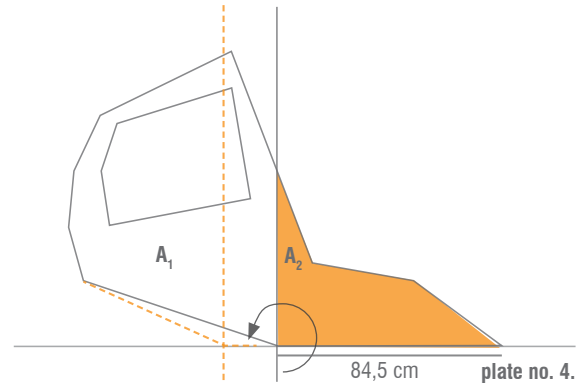


plate no. 5

$$A_1 \leq A_2$$

$$A_1 = 3.441 \text{ cm}^2 \leq A_2 = 8.365 \text{ cm}^2$$

The equation is fulfilled and moment occurs
favouring the stability at ground

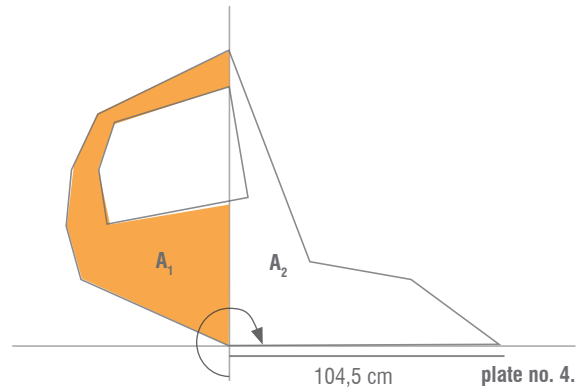


plate no. 6

$$A_1 \leq A_2$$

$$A_1 = 4.682 \text{ cm}^2 \leq A_2 = 5.057 \text{ cm}^2$$

The equation is fulfilled and moment occurs
favouring the stability at ground

plate no. 7

$$A_1 \leq A_2 + A_3$$

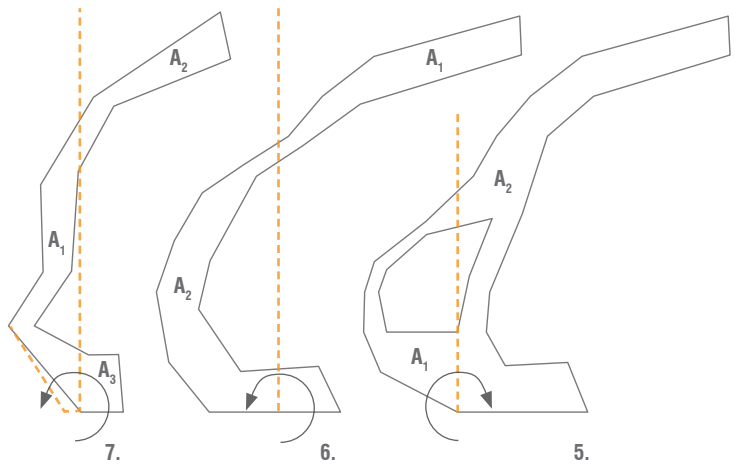
$$A_1 = 3.188 \text{ cm}^2 \leq A_2 = 3.016 \text{ cm}^2$$

Moment occurs creating backwards tilting
Centre of rotation is moved 10 cm

$$A_1 \leq A_2 + A_3$$

$$A_1 = 2.541 \text{ cm}^2 \leq A_2 = 4.071 \text{ cm}^2$$

The equation is then fulfilled and moment
occurs favouring the stability at ground



CALCULATIONS . BENDING IN PLATE ELEMENTS?

From the previous pages several of the main plate elements in the fan-structure were found critical concerning the risk of tilting backwards or forward due to self weight and element shape. Beside those risks and considerations on shape adjustments, as well as total weight, also risks of bending in the slim parts of the elements due to dead loads of respectively the cantilevered part and the in-between felt structure should be examined. As seen of figure A5.6 – the shear wall elements no. 5, 6, and 7 have areas of very small surface thickness. With wall no. 5 it is perhaps not as critical as plate no. 6 and 7, as the remaining part of the element is rather thick, and forces are able to distribute down those sides as well. However, with both plate no. 6 and 7 forces occurring from respectively self weight and loads of the cantilevered part are depended on the distribution through the critical points, possible causing a point of bending or ultimately breaks. To assure or check the stability of the structure of the design proposal I have therefore initially chosen to make a STAAD.Pro analysis on the worst-case-scenario of plate no. 6. This specific plate is initiatory considered the most critical of the entire structure, as plate no. 7 in relation hereto presumably takes lesser forces and load of the cantilevered part, than plate no. 6.

SHEAR WALL NO.6

Shear wall no. 6 constitutes together with wall no. 5 the main structure carrying the load of the cantilevered part. The load transfer and physical connection is made by the use of a steel hinge "joining" walls 8 and 9 to walls 5 and 6. However part of the load from the cantilevered part is also carried by wall no. 7 via the hinge connection to wall no. 8.

The most critical point of the shear wall is the narrow part marked with an A (see figure A5.7), measuring only 9.8 cm in depth and 3 cm in cross-section when calculating with plywood as preferred material. As such the total sum of loads affecting the shear wall (the cantilevered part, the felt and the dead load of the structure itself) can possibly cause the plate to bend in this exact point.

METHOD, STAAD.PRO ANALYSIS

When using the computer programme STAAD.Pro to analyse the deformations of wall no. 6, the complex appearance of the plate structure needs to be transformed into a much simpler wire-frame model, depicting only single members connected via nodes. This is done by using the mean-values in the plate width of each bend, to construct a representative of the actual plate.

The structure used for the structural analysis can be seen in figure A5.8.

Fig. A5.6

Structural plan

The orange line marks plate no. 6 and gives an overview of the loads affecting the plate structure. Both the weight of the cantilevered part (plates, steel plates and felt) as well as the steel hinge affects the dead load of the plate.

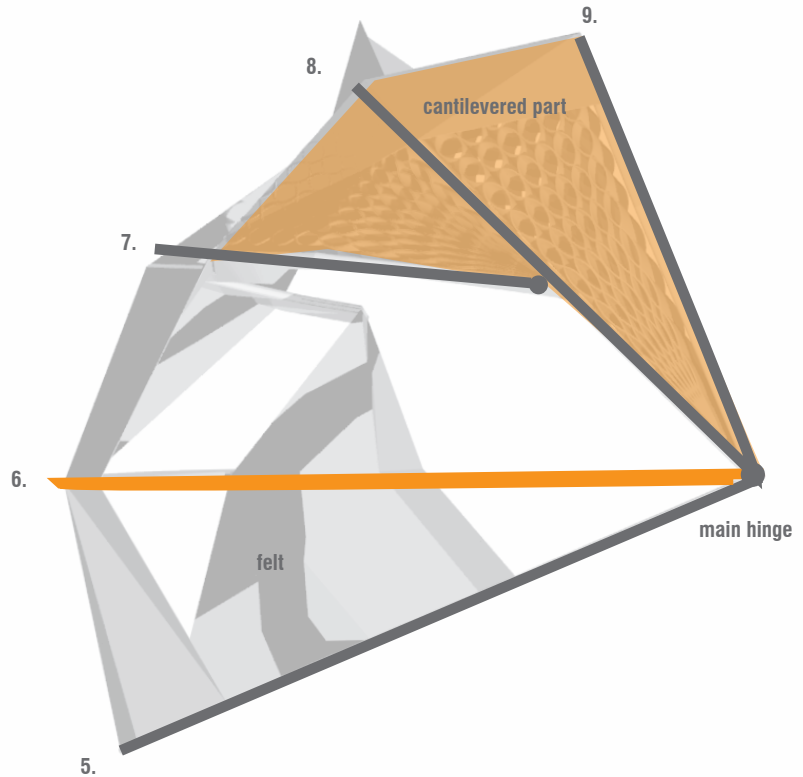
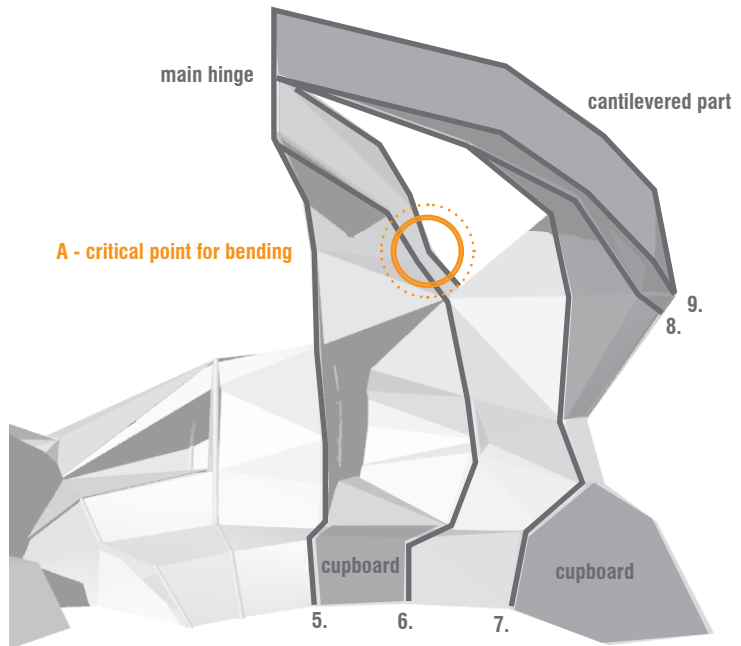


Fig. A5.7

Structural perspective

The orange circle marks the critical point A, in risk of bending or breaking because of the slim structure of plate no. 6. The purpose of the STAAD.Pro analysis is therefor to examine deformations in the entire plate, and investigating whether the choice of material thickness is sufficient to avoid bending or breaking.



By applying the plate to a simple Cartesian system, you are able to detect the x,y-coordinates of each node; entering these into the programme and finally defining each member between the nodes. Afterwards information on cross-section area, material density, elasticity module, boundary conditions, and supports are applied (see calculation basis in figure A5.8).

Furthermore distributed loads for respectively self weight and the dead load of the cantilevered part need to be applied. The self weight of plywood and felt are applied to each member, whereas the dead load of the cantilevered part is applied to the end node no. 12 (see figure A5.9).

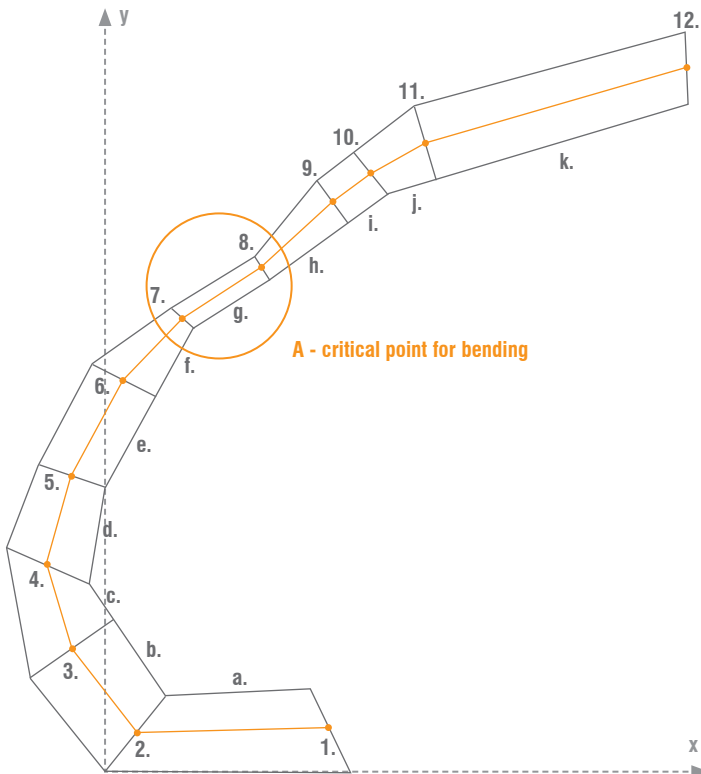


Fig. A5.8

Calculation basis

Preparation of model for STAAD.Pro as well as defining profile material and different load cases.

NODE COORDINATES (x;y)

node 1: (753;143)
node 2: (99;127)
node 3: (-112;408)
node 4: (-198;697)
node 5: (-114;988)
node 6: (64,7;1311)
node 7: (256;1511)
node 8: (523;1683)
node 9: (759;1901)
node 10: (889;1998)
node 11: (1069;2099)
node 12: (1947;2355)

CROSS-SECTIONS (h;w)

section a: (319;30)
section b: (330;30)
section c: (311,5;30)
section d: (268;30)
section e: (252;30)
section f: (210;30)
section g: (102;30)
section h: (138;30)
section i: (181;30)
section j: (221;30)
section k: (251;30)

Conducting analysis

First the basis of the statical examination is determined. Hence, by use of Danish codes for practice; DS409, DS410, DS413 - the safety class, and application class are outlined.

Choosing material

Having determined the calculation basis, the choice of material helps determining respectively cross-section area, density, and most importantly affecting loads in the structure. The calculations are made using an average approximation on the loads of respectively the cantilevered part and the felt directly connected to wall no. 6.

Calculating loads

Calculating the different loads, there is a difference in self weight being the dead load of the specific plate area and the fixed in-between felt. The payload being the load of the cantilevered part transferred onto the point B. When calculating self weight the calculation basis on safety class must be added to fulfil the demands of the codes for practice.

Calculation basis

safety class:	normal
application class (indoor, DS413:11):	1
partial coefficient (ultimate limit state, plate):	$\gamma_m = 1,5 \gamma_0$
$\gamma_0 = 1$ (normal safety class, DS413:22)	$\gamma_{m,ul} = 1,5$
loads:	permanent

Profile plate no. 6

wall material:	plywood (30 mm)
density plywood:	600 kg/m ³
$f_{m,d}$ (plywood, K-load because temporary)	
20,0 MPa	
Elasticity module E_0 (plywood, K-load)	6.000 MPa
cross-section area:	$A_p = 2940 \text{ mm}^2$
other material:	felt (5 mm)
density felt:	280 kg/m ³
felt area (in length 1.627 m):	3.951 m ²

Profile cantilevered part

plate material:	plywood (30 mm)
other material:	felt (5 mm)
	alu. plates (2mm)
density aluminium plate:	2750 kg/m ³
plate volumen:	0.026 m ³
felt volumen:	0.050 m ³
aluminium plates:	0.003 m ³

Load (K-temporary). Self weight

plywood plate: $(0.0029 \text{ m}^2 \times 600 \text{ kg/m}^3) \times 9.81 \text{ m/s}^2 = 0.017 \text{ kN/m}$
felt: $((0.02 \text{ m}^3 \times 280 \text{ kg/m}^3) \times 9.81 \text{ m/s}^2) / 1.627 \text{ m} = 0.039 \text{ kN/m}$
 $F_q = 0.017 \text{ kN/m} + 0.039 \text{ kN/m} = 0.056 \text{ kN/m}$

$$S_{d,ul} = G_{k, \text{plate(ultimate limit state)}} \times \gamma_m = 0.056 \text{ kN/m} \times 1,5 = 0.084 \text{ kN/m}$$

Pay Load (K-temporary). Cantilevered part

plywood plates: $1/3 \times (0.026 \text{ m}^3 \times 600 \text{ kg/m}^3 \times 9.81 \text{ m/s}^2) = 0.051 \text{ kN}$
felt: $1/3 \times (0.050 \text{ m}^3 \times 280 \text{ kg/m}^3 \times 9.81 \text{ m/s}^2) = 0.046 \text{ kN}$
steel plates: $1/3 \times (0.003 \text{ m}^3 \times 2750 \text{ kg/m}^3 \times 9.81 \text{ m/s}^2) = 0.027 \text{ kN}$

$$F_{\text{cantilevered}} = 0.051 \text{ kN} + 0.046 \text{ kN} + 0.027 \text{ kN} = 0.124 \text{ kN}$$

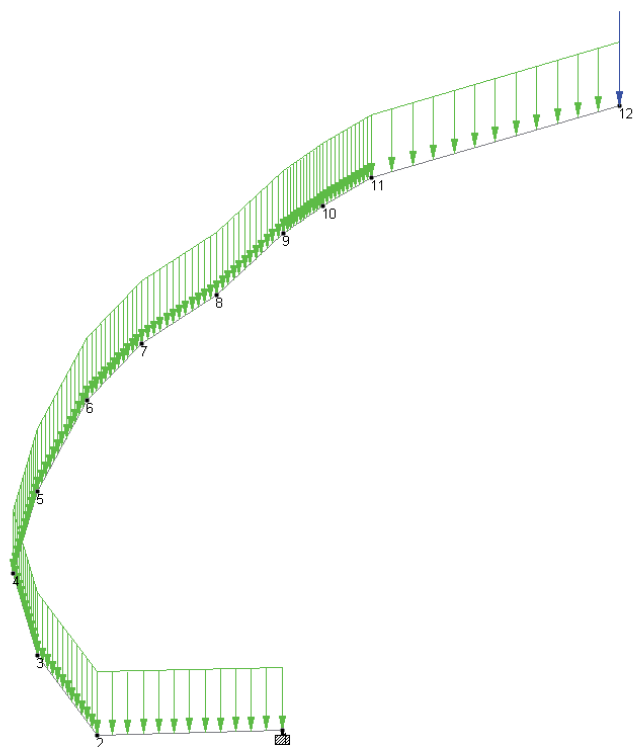


Fig. A5.9

STAAD.PRO model

Model used for analysis in STAAD.Pro, applied with the different loads and supports. With the analysis we are especially interested in the maximum stresses occurring in the different members, and in relation hereto the deformations in the different nodes. With the results of these two aspects it can be seen whether there actually is a risk of bending in point A.

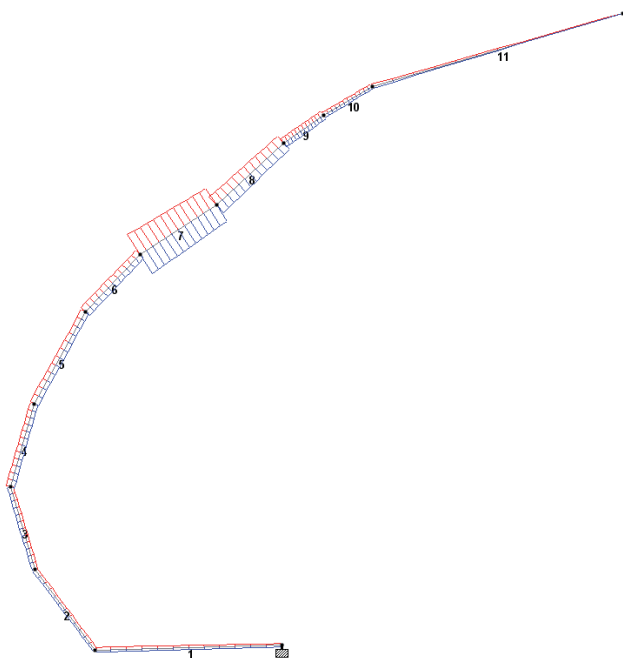


Fig. A5.10

Maximum stresses

Model showing results of STAAD.Pro analysis. Here it is clearly seen how member no. 7 and thereby the area in-between node no. 7 and 8 shows the largest stresses and thereby is in greatest risk of bending or breaking.

Corner Stress							Max Stress				
Beam	L/C	Dist m	Corner 1 N/mm2	Corner 2 N/mm2	Corner 3 N/mm2	Corner 4 N/mm2	Max Comp N/mm2	Max Tens N/mm2			
	2 LOAD CAS	0.000	-0.235	-0.235	0.255	0.255	0.255	-0.235			
			0.092	-0.224	-0.224	0.243	0.243	0.243	-0.224		
			0.184	-0.213	-0.213	0.231	0.231	0.231	-0.213		
			0.277	-0.203	-0.203	0.220	0.220	0.220	-0.203		
			0.369	-0.193	-0.193	0.210	0.210	0.210	-0.193		
			0.000	-0.791	-0.791	0.819	0.819	0.819	-0.791		
	3 LOAD CAS		0.092	-0.773	-0.773	0.802	0.802	0.802	-0.773		
			0.184	-0.756	-0.756	0.784	0.784	0.784	-0.756		
			0.277	-0.738	-0.738	0.767	0.767	0.767	-0.738		
			0.369	-0.721	-0.721	0.750	0.750	0.750	-0.721		
		6	1 LOAD CAS	0.000	-0.341	-0.341	0.359	0.359	0.359	-0.341	
					0.069	-0.325	-0.325	0.342	0.342	0.342	-0.325
	0.139			-0.309	-0.309	0.326	0.326	0.326	-0.309		
	0.208			-0.294	-0.294	0.310	0.310	0.310	-0.294		
	0.277		-0.279	-0.279	0.295	0.295	0.295	-0.279			
2 LOAD CAS	0.000		-0.262	-0.262	0.298	0.298	0.298	-0.262			
		0.069	-0.266	-0.266	0.282	0.282	0.282	-0.266			
		0.139	-0.252	-0.252	0.267	0.267	0.267	-0.252			
		0.208	-0.237	-0.237	0.252	0.252	0.252	-0.237			
			0.277	-0.224	-0.224	0.238	0.238	0.238	-0.224		
		3 LOAD CAS	0.000	-1.045	-1.045	1.073	1.073	1.073	-1.045		
				0.069	-1.018	-1.018	1.046	1.046	1.046	-1.018	
				0.139	-0.991	-0.991	1.019	1.019	1.019	-0.991	
			0.208	-0.964	-0.964	0.992	0.992	0.992	-0.964		
			0.277	-0.937	-0.937	0.965	0.965	0.965	-0.937		
		7	1 LOAD CAS	0.000	-1.205	-1.205	1.229	1.229	1.229	-1.205	
					0.079	-1.120	-1.120	1.144	1.144	1.144	-1.120
					0.159	-1.037	-1.037	1.060	1.060	1.060	-1.037
				0.238	-0.955	-0.955	0.978	0.978	0.978	-0.955	
			0.318	-0.876	-0.876	0.897	0.897	0.897	-0.876		
		2 LOAD CAS	0.000	-0.968	-0.968	0.990	0.990	0.990	-0.968		
			0.079	-0.889	-0.889	0.910	0.910	0.910	-0.889		
			0.159	-0.814	-0.814	0.834	0.834	0.834	-0.814		
	0.238		-0.742	-0.742	0.761	0.761	0.761	-0.742			
			0.318	-0.673	-0.673	0.692	0.692	0.692	-0.673		
		3 LOAD CAS	0.000	-4.009	-4.009	4.053	4.053	4.053	-4.009		
				0.079	-3.850	-3.850	3.894	3.894	3.894	-3.850	
				0.159	-3.691	-3.691	3.735	3.735	3.735	-3.691	
			0.238	-3.532	-3.532	3.575	3.575	3.575	-3.532		
		0.318	-3.372	-3.372	3.416	3.416	3.416	-3.372			
	8	1 LOAD CAS	0.000	-0.474	-0.474	0.494	0.494	0.494	-0.474		
				0.080	-0.437	-0.437	0.457	0.457	0.457	-0.437	
				0.161	-0.401	-0.401	0.420	0.420	0.420	-0.401	
				0.241	-0.366	-0.366	0.384	0.384	0.384	-0.366	
		0.321	-0.333	-0.333	0.350	0.350	0.350	-0.333			
	2 LOAD CAS	0.000	-0.364	-0.364	0.381	0.381	0.381	-0.364			
		0.080	-0.333	-0.333	0.349	0.349	0.349	-0.333			
		0.161	-0.303	-0.303	0.319	0.319	0.319	-0.303			
		0.241	-0.275	-0.275	0.290	0.290	0.290	-0.275			
			0.321	-0.248	-0.248	0.262	0.262	0.262	-0.248		
		3 LOAD CAS	0.000	-1.834	-1.834	1.875	1.875	1.875	-1.834		
				0.080	-1.757	-1.757	1.798	1.798	1.798	-1.757	
				0.161	-1.680	-1.680	1.721	1.721	1.721	-1.680	

= 6.182 MPa

= 6.182 MPa

Fig. A5.11

Maximum stresses

In relation to figure A5.10 depicting the stresses in the different members of the shear wall structure, it is also seen from the above table how member no. 7 shows the largest stresses both in terms of tension and compression. The maximum tensions are 6.182 MPa and relative to the f_m value of 20 MPa, there is as such no immediate risks breaking.

Node	L/C	Horizontal	Vertical	Horizontal	Resultant	Rotational		
		X mm	Y mm	Z mm	mm	rX rad	rY rad	rZ rad
1	1 LOAD CAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	2 LOAD CAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	3 LOAD CAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	1 LOAD CAS	0.000	-0.004	0.000	0.004	0.000	0.000	-0.000
	2 LOAD CAS	0.000	-0.002	0.000	0.002	0.000	0.000	-0.000
	3 LOAD CAS	-0.001	0.031	0.000	0.031	0.000	0.000	-0.000
3	1 LOAD CAS	0.004	-0.001	0.000	0.004	0.000	0.000	-0.000
	2 LOAD CAS	0.004	0.001	0.000	0.005	0.000	0.000	-0.000
	3 LOAD CAS	0.039	0.061	0.000	0.072	0.000	0.000	-0.000
4	1 LOAD CAS	0.016	0.003	0.000	0.016	0.000	0.000	-0.000
	2 LOAD CAS	0.015	0.004	0.000	0.016	0.000	0.000	-0.000
	3 LOAD CAS	0.100	0.079	0.000	0.127	0.000	0.000	-0.000
5	1 LOAD CAS	0.039	-0.004	0.000	0.039	0.000	0.000	-0.000
	2 LOAD CAS	0.035	-0.002	0.000	0.035	0.000	0.000	-0.000
	3 LOAD CAS	0.190	0.052	0.000	0.197	0.000	0.000	-0.000
6	1 LOAD CAS	0.080	-0.027	0.000	0.085	0.000	0.000	-0.000
	2 LOAD CAS	0.071	-0.022	0.000	0.074	0.000	0.000	-0.000
	3 LOAD CAS	0.336	-0.028	0.000	0.337	0.000	0.000	-0.001
7	1 LOAD CAS	0.117	-0.063	0.000	0.133	0.000	0.000	-0.000
	2 LOAD CAS	0.102	-0.052	0.000	0.115	0.000	0.000	-0.000
	3 LOAD CAS	0.461	-0.149	0.000	0.485	0.000	0.000	-0.001
8	1 LOAD CAS	0.197	-0.187	0.000	0.271	0.000	0.000	-0.001
	2 LOAD CAS	0.167	-0.154	0.000	0.227	0.000	0.000	-0.001
	3 LOAD CAS	0.731	-0.569	0.000	0.927	0.000	0.000	-0.002
9	1 LOAD CAS	0.361	-0.366	0.000	0.514	0.000	0.000	-0.001
	2 LOAD CAS	0.299	-0.297	0.000	0.421	0.000	0.000	-0.001
	3 LOAD CAS	1.312	-1.199	0.000	1.777	0.000	0.000	-0.003
10	1 LOAD CAS	0.442	-0.482	0.000	0.654	0.000	0.000	-0.001
	2 LOAD CAS	0.363	-0.389	0.000	0.533	0.000	0.000	-0.001
	3 LOAD CAS	1.603	-1.618	0.000	2.278	0.000	0.000	-0.003
11	1 LOAD CAS	0.528	-0.626	0.000	0.819	0.000	0.000	-0.001
	2 LOAD CAS	0.432	-0.504	0.000	0.664	0.000	0.000	-0.001
	3 LOAD CAS	1.914	-2.143	0.000	2.873	0.000	0.000	-0.003
12	1 LOAD CAS	0.748	-1.382	0.000	1.571	0.000	0.000	-0.001
	2 LOAD CAS	0.607	-1.105	0.000	1.261	0.000	0.000	-0.001
	3 LOAD CAS	2.726	-4.930	0.000	5.634	0.000	0.000	-0.003

= 7.417 mm

Fig. A5.12

Maximum deformations

Relative to the maximum stresses in member no. 7 it is seen from the above table how those stresses lead to a maximum deformation of 7.417 mm in node no. 12. This means there is a small deformation in the overall structure leading to a slightly small bending in the cantilevered part. However, deformations below 10 mm are in general acceptable as why the overall stability of the structure can be approved without further structural alterations.

STAAD. PRO FORM ANALYSIS . RESULTS

When the model has been set up it is possible via the STAAD.Pro analysis to see the maximum stresses and deformations caused by the applied loads on the different members and in the top node of the cantilevered part. My primary interest with the analysis has been the stresses possibly occurring relative to member no. 7 in order to state whether unacceptable deformations occur in the top of the cantilevered part (node no. 12) causing the structure to bend or break around the critical point A.

With the calculation basis initiatory outlined in figure A5.8 it was defined that for the material choice of plywood the maximum stresses in the structure should be less than:

$$\sigma_{m,d,max} \leq f_{m,d} = 20.0 \text{ MPa}$$

From the STAAD.Pro analysis and table no. A5.11 we found that the maximum stresses occurred in member no. 7, and that those stresses were:

$$\sigma_{m,d,max} = 6.182 \text{ MPa} \leq f_{m,d} = 20.0 \text{ MPa}$$

Which can be considered a rather satisfying result.

Relative to the result on the maximum stresses it was further more seen with figure A5.12 how the maximum deformations occurring in the top node of the cantilevered part were less than 10 mm, thus barely being visible.

Summarizing the results of the STAAD.Pro analysis on the stability of the shear wall no. 6, the plate structure fulfils the ability to carry both the load of the cantilevered part without any further structural deformations and therefore no further considerations on adjusting the shape of the plates are needed.

However, relative to the initiate discussion on whether to use plywood, masonite or other similar wooden plate materials, the below table outlines the differences in respectively density, elasticity module, and maximum stress levels. Here it is seen how plywood performs best with respect to both stiffness and deformations:

	$f_{m,d}$ [MPa]	E [MPa]	ρ [kg/m ³]
Plywood	20	6000	600
MDF	19	2700	850
Chipboard	12.5	3200	750

(Træ og Trælpinstruktioner 1. Træbranchens oplysningsråd 2008)

MILLENNIUM TRICLINIUM. NOTES

THEORETICAL PART

1. Courses in Food Science

During the period 1.2.2007 – 20.12.2007 I participated in four courses at the Department of Food Science at Copenhagen University. The courses were respectively; Sensory and Consumer Science, Culinary Food Design and Consumer Preferences, Food and Society, The Sociology of Food.

2. Triclinium

The word; Triclinium, is adopted from the Greek triklinion, from tri- and kline- meaning a couch. As so the Triclinium is characterised by the lecti- a formation of three couches forming a horseshoe surrounding a small centred table: mensa, or the stibadium – a semi-circular formation around a centred table, both allowing space for nine persons (three on each couch). The couches slopes away from the table about ten degrees, and diners would recline on the couches in a semi-recumbent position. The fourth side of the arrangement was left free to allow service of food and drinks. The guests were arranged in a prescribed seating order, emphasising the social status and division of the attending persons.

The left couch, lectus medius was reserved for the distinguished guests, where the most noble space of them all was the locus consularis. Usually the host and the most noble of the guests was placed closely to each other, leaving the right couch, lectus summus for the lesser important persons of the company. Each couch was firmly furnished with pillows and grand blankets to assure the comfort reclining while eating. (Curl 1999:682; Fleischer 2007:414; Strong 2002:28)

Stibadium: Is a later form of the Roman Triclinium. The difference between the triclinium and the stibadium is the shape or form of the couches used for reclining while eating, as the stibadium is slightly more semi-circular in shape than the otherwise rectangular triclinium arrangement. (Hannestad 1979:88)

3. Service a' la francaise

Evolved from earlier medieval and Renaissance models, and set as a system in the course of the eighteenth century. The tables were according to the style laden with food before guests arrived, and dishes, candles, salts, and ornaments had been placed with careful attention to the hierarchy of each dish and its position. The dinner was still divided into two - three courses. (Visser 1991:198; Franck 2002:59)

4. Service a' la russe

The arrival of feasting á la russe made extravagant a

matter of the number and quality of dishes appearing in succession. And represents relative to service á la française the serving of food directly off dishes instead of arranging it on the tables. (Visser 1991:203; Franck 2002:61)

5. Service á l'assiette

With service á l'assiette the scale of food servings minimized even more, taking the presentation of the food into plate servings - delivered directly from the kitchen to the individual diner. Thereby the chefs become responsible for the food and serving of portions to each guest and not the waiters. (Franck 2002:61)

6. The first restaurant

The first restaurants were probably invented by Roze de Chantoiseau, who frequented the aristocratic and administrative circles of Paris to be able to accomplish his idea of the public dining room. (Spang, 2000:15) Furthermore in 1789, in the full flush of shared revolutionary optimism, the proprietors of the new "cirque de Palais Royal" (a multi-venue centre of enlightenment and entertainment in the centre of Paris) advertised that their ample establishment included both a café and a restaurant. (Spang, 2000:79)

6. The Restaurant

Centuries before a restaurant was a place to eat, a restaurant was a thing to eat; a restorative broth. The restaurant as a space of urban sociability emerged from the consommé, and in the beginning one went to a restaurant or a "restaurateur's room" to drink restorative bouillons, as we go to a café to drink coffee. The first restaurants sold little food and advertised their establishments as especially suited to all those too frail to eat an evening meal. In its initial form, the restaurant was specifically a place one went not to eat, but to sit and weakly sip one's restaurant (bouillon). Until well after the middle of the nineteenth century, restaurants were to remain almost exclusively a Parisian phenomenon. (Spang, 2000:2)

8. Marcel Proust: "Remembrance of things past"

With his seven books collected into one under the title; Remembrance of things past, Marcel Proust is widely known for his sensuous, poetic and rich language, and is often cited for his nostalgic reminiscence and story of Mr. Swans Way, where the grown up main character is taken back to his childhood memories and past remembrances of Combray; by the instant moment of eating a Madeleine cake dipped in the lime-flower tea as he used to every Sunday morning in his aunt Léonie's bedroom. The sensations provided through taste and smell takes him

back into a vivid memory of people long gone, the things broken and scattered, the house upon the street, the rooms, the little pavilion, the garden, the square, the streets, the flowers, the church and the inhabitants. The entire scenery rises up like a theatre on the small hint with a Madeline cake. (Moncrieff 2006:60-64)

9. Anne Just

Anna Just is a painter and an artist, as well as very famous for her grand garden in the small city called Hune, in Northern Jutland, Denmark. Today she is married with Claus Bonderup, but back in 1981 she was first and foremost one of the persons behind culinary initiatives like the small café Brix in Aalborg, and proves strong relations between the the field of art, architecture and food.

10. "The gastronomic analogy"

A chapter in the book; Changing Ideals in modern architecture 1750-1950, by architectural theoretician Peter Collins, referring to a lecture originally given by English architect James Ferguson. Here Ferguson relates architecture and food by claiming; "The process by which a hut to shelter an image is refined into a temple, or a meeting house into a cathedral, is the same as which refines a boiled neck of mutton into côtelettes à l'Impériale or a grilled fowl into Poulet à la Marango". (Collins 1965:167)

11. Medici Family:

The Medici family was a powerful and influential Florentine family from the 13th to the 17th century in Italy and partly in France and England through their marriages into the Royal courts. The family produced among others three popes; Leo X, Clement VII and Leo XI, but within the culinary field and culinary history the family is considered as some of the precursors within Italian cooking, and with the marriage in 1533 between Catherine de' Medici and later French King Henry II furthermore considered as the founders of the contemporary French Cuisine. The myth goes that Catherine de' Medici brought several Italian cooks and pastry chefs with her to the Valois court on her marriage to Henry, and it was their skilled contribution to the culinary standard within the French court that formed the basis of the contemporary French cuisine. As so it is suggested among some historians that it was the Italian cuisine that formed the basis of French cuisine; and as the Italian cuisine has its rooting in the antique Roman food, both the French and Italian contemporary cuisine could as such be considered offspring of the Roman festive feast. (Strong 2002:147, Hannestad 1979:7)

12. Jean Anthelme Brillat-Savarin (1755-1826)

Was a French lawyer and mayor of profession but with his grand interest within gastronomy probably have become most famous for his writings in the book; The physiology of taste, or meditations on transcendental gastronomy. Where he with chapters on the senses, taste, gastronomy, appetite, food in general, theory of frying, thirst, drinks, the end of the world, gourmandism, gourmands, gastronomical tests, pleasures of the table, hunting-luncheons, digestion, rest, sleep, dreams, influences of diet, obesity, treatment of obesity, thinness, fasting, exhaustion, death, cooking, restaurants, classical gourmandism, bouquet, varieties, and his aphorisms, even today stands as one of the unique theoreticians endeavouring the field of gastronomy from a perspective of both lust, death, history, science, sociology, philosophy and passion. (Brillat-Savarin 1949:back)

13. Edmund Husserl (1859-1938)

Was a German philosopher and considered the father of phenomenology, as he broke with the positivist orientation and understanding of science and philosophy giving weight to subjective experience as source of knowledge of objective phenomena. (Blackburn 1994:181)

14. Plato (324 -347BC) and Aristotle (384-322 BC)

With the Greek philosophers Plato and Aristotle sight was considered as the most noble of our senses, and regarded as the direct link to intellect and knowledge. The eyes were considered more exact witnesses than the ears or the remaining bodily sense modalities. In contemporary time this enhancing of the sight has in Western cultures caused segmentation between lower and higher sense modalities; distinguishing between tactility, odour, taste and the higher senses of sight and sound. This segmentation is further emphasised by contemporary norms and values of our culture, where the lower senses of touch, smell and taste are often associated with more private and intimate actions, strengthening the focus on the visual sense in public environments as for instance restaurants. (Pallasmaa 1996:6,17)

15. Odour; the olfactory sense

Odour is one of the earliest and most basic methods of communication. It is primarily considered a chemical sense also called the olfactory sense serving diverse functions of differentiating among individuals; recognising females from males, children from grownups and family members from strangers, but also makes it possible for us to identify the emotional state of other living organisms. Furthermore it helps us locate food and judge whether it is healthy and fresh to eat or not. The olfactory sense receives chemical stimuli via the nose (ortho-frontal) or via the mouth (retro-frontal) and is directly linked to

the amygdale and hypothalamus, which mediate the emotional and motivational aspects of smell as well as many of the behavioural and physiological effects of odours. (Hall 1966:46; Meilgaard et al. 2007:8-9; Kandel et al. 2000:625-635)

16. Cartesian Tradition

The Cartesian tradition is what forms the background of perception-psychology within the more positivist research fields developed by J.J. Gibson. The approach divides the body from the mind without any equivocality; on one side determining the body as a tool; a total of the sense modalities: touch, sight, smell, sound and taste, merely forming an outer shell perceiving stimuli from our surroundings, - and on the other side: the soul, or inner mind as something existing in it self, detached from the outer world and formed entirely through cognition and interpretation of the received stimuli. (Lübecke 2002:334)

17. Eyes; the visual sense

The amount of information gathered by the eye is enormous compared to the residual senses (odour, taste, touch and sound), as sight goes beyond distances of even the ear or nose. Without eyes man would probably not be able to gather information within a radius larger than five to a 35 meters, but with sight one can see the stars and collect information in an enormous speed. Furthermore the ability of the eye to catch up information is not limited by temperatures or humidity as is both the ability to hear and detect odours. (Hall 1966:43,65) The structure of the eye has many implications for the design of space, and just to mention some according to Hall especially movement in the periphery of the eye, straight edges, darkness and white colours draws our attention, without even focussing. At an angle of 45 degrees we are able to tell colours, sex, and movement of our surroundings, though, not in detail, but specifically enough to be aware of dangers and approaching objects. The accordance between sight and sound, is used to navigate through rooms, and an effect of incongruity between visual and auditory space can cause people to stumble or fall over furniture and spatial elements in a room of high reverberation. (Hall 1966:43,72)

18. Touch

Touch is the most personal experience of all the sensations according to Hall, and for many people it is furthermore considered a very intimate act to touch someone else. The task of architecture becomes even more important as it directly touches upon humans and their bodies through room, furniture and interior décor. Furthermore man's sense of his environment and enclosing space is closely related to his sense of him self through his experience of his own body in the world; the movement and the skin feel. (Hall 1966:63)

19. Skin; sensing heat and touch

Exterioceptors; nerves located under- and in the skin convey sensations of heat, cold, touch, and pain, thus enable us to detect movement, distances to surfaces and closeness to other objects through the reading of temperature differences. (Hall 1966:54-55) Heat regulations and detection of odours (thus partly taste) lay deep in the brain and is directly connected to and controlled by the hypothalamus, which is the emotional part of the brain we are not able to conscious control. Body heat is according to Hall furthermore highly personal and linked in our minds with intimacy as well as childhood experiences. (Hall 1966:58)

20. Tectonic

Tectonics deals with the design and jointing of form elements into an entire whole; considering the inherited relationship between architectonic idea, form principles, building technology, and constructional structure. Tectonic becomes the art of joinings, "art" here understood as encompassing techne, and therefore indicates tectonic as assemblage not only of building parts but also objects. The term have though altered through history and dates back to German Karl Otfried Müllers; Handbuch der Archäologie der Kunst published in 1830. Since then especially Karl Bötticher and Gottfried Semper has become known for their engagements in the tectonic approach. (Beim 2004: back; Frampton 2001:4-5)

21. Sensation

Stimuli received with the five senses are separated according to mechanoreceptors in the haptic and kinetics system receiving information on touch and movement through physical inputs via the skin, muscles, joints and parts of the tongue, mouth and throat; chemoreceptors as part of the olfactory and gustatory system, being airborne molecules received by nose and tongue; sound waves acting as mechanical stimuli for the ears, and finally light waves activating the photo-receptors of the eyes. All stimuli whether chemical or mechanical, are formed into chemical reactions when received by the receptors, and then further taken by the nervous system into different parts of the brain. (Kandel et al. 2000:414)

22. Ferdinand de Saussure (1857-1913)

Was a Swiss linguist who is generally considered the father of structural linguistics and of structuralism in its wider application. (Blackburn 1994:340)

23. Twelve Animal Signs

The twelve animal signs also referred to as *Zodiac*, derive originally from the Greek zodiacus meaning "circle of animals" and denote in contemporary time an annual cycle of twelve stations along the ecliptic and furthermore

represents contemporary understandings of birth-signs, but was originally used within astrology and a means of deviding the months of the year. Representing the twelve signs are: Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricorn, Aquarius, Pisces. (<http://en.wikipedia.org>)

of the Roman concept of a dark cavern with moss and water flowing over rough stones, sacred to nymphs who inhabited the sea, rivers, woods, trees and mountains. (Benzel 1996:136)

24. Conrad & Axel

Are the first TV-chefs in Denmark and began their carriers in 1966. Both them were educated chefs within the professional restaurant business and quite experiences in the culinary art. They always appeared in full uniform and traditional toque, and became known among others for their enthusiastic use of Danish butter in their cooking. (Theil 2007)

25. “Du skal børste dine tænder, hver gang du vasker hænder”

Was a highly popular song performed by Daimi and Ina Løndahl during the 1970s in Denmark. (Theil 2007)

26. Kai Normann Andersen

Was a Danish composer during the 1930s, 40s and 50s and is especially known for his evergreens used in several Danish movies, revues and music performances. Some consider his songs typically Danish, representing mainly laughter and smile. Among more than 900 melodies composed by Andersen, perhaps some of their more famous ones are;

Den aller sidste dans (1951), Alle går rundt og forelsker sig (1941), Da Titina gik til bal (1951), Gå med i lunden (1932), Hot-hot (1937), Min Madeleine (1952), Undskyld hr. må jeg byde dem et kirsebær? (1933) (<http://www.ewh.dk/>)

27. Emperor Hadrian

Also known as; Publius Aelius Traianus Hadrianus (76 –138 AD). Hadrian was emperor of Rome from 117 – 138 AD, and had a strong passion for architecture and fine arts in general. Among others he arranged the erejction of classical works and architectural masterpieces as for instance the 117 km long wall; Hadrians Wall dividing England and Scotland , the famous Pantheon in Rome, Villa Hadrian near Tivoli in Rome, and several other theatres, temples, libraries or even cities across the Roman Empirium. (Stierlin 2002:151)

28. Canopus

Part of the gardens of Hadrians Villa, at Tivoli, laid out around Euripus canal lined with Egyptianizing statues and complete with sculptured crocodiles and an elephant, intended as a mnemonic of the Nilotic landscape and of the Canopus itself. (Curl, 1999:124)

29. Nimphaeum

The dark grotto called a nimphaeum originally derives

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