THE IMPERIAL Henrik Fogelklou

MASTER THESIS AT CHALMERS ARCHITECTURE 2012-05-11 MPARC, MATTER, SPACE, STRUCTURE









undivided attention of the Empire. A new high rise district would bridge the gap between Hisingen and the existing city core. An Imperial outpost, the IMPERIAL, would be a distinguished landmark and expres-

"The IMPERIAL" is a Master thesis (MT), in architecture at Chalmers university of technology, Gothenburg, Sweden. The result is a combination of three ingredients; the high rise building, the hotel and the application of a background story.

What happens if I combine three things that fascinate me; high rise buildings, hotels and science fiction? What would the outcome be? How would the three ingre-

The focus of my MT has been hotel design in general and in a high rise environment in particular. The twist has been to design the hotel using a background story as an instrument. The outcome is a high rise hotel with a distinct science fiction based de-

Prior to the MT a design manual was fleshed out to serve as a backdrop component. It is based upon the STAR WARS universe in general and the Imperial "industrial army architecture" with the Deaths Star in focus, in particular. The design manual was created with a hotel design in

There is currently an intensive discussion and enthusiasm regarding what is called "The River City" in Gothenburg. The city core is to be expanded, resulting in 30 000 new apartements and 40 000 new job opportunities. If the Göta Älv bridge is replaced (as planned) the city has every possibility to make this a start to develop "Frihamnen" and "Ringön" on the north river bank. A business centre - in close proximity of the old city with the central station and the upcoming "västlänken" - could very well work as an incubator for further de-velopment of the area or in a short time frame be a part of Gothenburgs 400th anniversary, 2021. Within such a context and development, hotels will much likely be needed, planned and built.



TRANSFORMING THE IDEA

Given the background it is obvious the Empire would propose a master plan and design based upon their own culture, architecture and engineering. Dead center in the new district an IMPERIAL outpost would be placed, functioning as a hotel.

THE IMPERIAL - a master thesis Chalmers University of Technology, 2012 Henrik Fogelklou



FRIHAMNEN DEVELOPMENT







MASTER PLAN

The master plan is based upon the grid like, and to some extent mathematically, pattern of the Death Star surface. Zooming in it resembles a high density city with defined blocks. Looking closer there are single high rise structures stretching well beyond the surface. Another distinguished feature of the Death Star is the "trench" wich in the master plan is transformed into a central, dividing street.







The old Göta Älv bridge is replaced with a new one, slightly turning in an arc towards the south, making the IMPERIAL AVENUE meet Backaplan in a straight line. The new bridge is made as low as possible to have it land as quickly as possible on both sides of the river. The bridge opens at midday and during a few hours at night to allow river traffic to pass. The new street will be a boulevard with trams in the center. The infrastructure node at Backaplan is redesigned in regards of the new situation.

The new blocks will be developed with high rise buildings in the height range of 100-150m. The higher blocks will be focused close to the IMPERIAL while lower blocks will make the transition to existing areas (Ringön) smoother.

Adjacent to the hotel, towards the river, lays the IMPERIAL PARK. The park will add to the green structure in the city center and become a new appreciated public space.

THE SHAPE

The shape of the IMPERIAL derives from two obvious sources; the Imperial spaceships and the backbone of the Empire – the Imperial stormtrooper. Although technical at close up the Imperial spaceships appear smooth and from a distance. The stormtrooper armor is white and made up of individual plates or pieces, clearly singled out against the black under suit. The combination of the two lead to the final exterior shape and design.





THE IMPERIAL - a master thesis Chalmers University of Technology, 2012 Henrik Fogelklou



VIEW FROM LILLA BOMMEN HARBOUR











open up to the 74th floor, houses express and service elevators as well as fire stairs, gathered in a central core.



Sky lobby floors serve as nodes to spread out the load on the main elevators. At each sky lobby floor there are two secondary sets of elevators. These secondary elevators are located close to the facade, exposing a fantastic view of Gothenburg and its surroundings.

The horizontal communication on each floor is done via the corridor surrounding the core. The corridor goes all the way around and connects both secondary elevator lobbies where the main staircase also is situated.

Maintenance and service floors are situated below each sky lobby as well as in the basement and at the top of the building. Service and staff elevators connect all the floors to provide access to storage and laundry facilities, restaurants, kitchens etc.

THE IMPERIAL - a master thesis Chalmers University of Technology, 2012 Henrik Fogelklou



1:1000

	+363.00							
	+359.00							
85	+355.00							SERVICE FLOOR
84	+351.00							SERVICE FLOOR
83	+347.00							PENTHOUSE
82	+343.00							SUITE 821-822
81	+339.00							SUITE 811-812
	+335.00							SUITE 801-802
	+331.00							SUITE 791-792
	+327.00							SUITE 781-782
	+323.00	1 #18198 #11			4 4 19 19 19 19 19 19 19 19 19 19 19 19 19			CAFÉ/TERRASS
	+319.00							SKYBAR/KITCHEN/RESTAURANT
	+315.00							SKYBAR/KITCHEN/RESTAURANT
	+311.00							ROOM 7401-7416
	+307.00 +303.00							ROOM 7301-7316 ROOM 7201-7216
	+299.00							ROOM 7101-7116
••••••	+295.00							ROOM 7001-7016
	+291.00							ROOM 6901-6916
	+287.00							ROOM 6801-6816
	+283.00							ROOM 6701-6716
66	+279.00							ROOM 6601-6616
65	+275.00							ROOM 6501-6516
64	+271.00							ROOM 6401-6416
63	+267.00							ROOM 6301-6316
62	+263.00							ROOM 6201-6216
61	+259.00							ROOM 6101-6116
60	+255.00							ROOM 6001-6016
	+251.00							ROOM 5901-5916
	+247.00							ROOM 5801-5816
	+243.00							ROOM 5701-5716
	+239.00							ROOM 5601-5616 ROOM 5501-5516
	+231.00							ROOM 5401-5416
	+227.00					=		ROOM 5301-5316
	+223.00					=		ROOM 5201-5216
51	+219.00							SKYLOBBY/RESTAURANT/CONFERENCE
50	+215.00							SERVICE FLOOR
49	+211.00							ROOM 4901-4916
48	+207.00							ROOM 4801-4816
47	+203.00							ROOM 4701-4716
	+199.00							ROOM 4601-4616
	+195.00					=		ROOM 4501-4516
	+191.00							ROOM 4401-4416
	+187.00					_		ROOM 4301-4316
	+183.00							ROOM 4201-4216 ROOM 4101-4116
	+179.00							ROOM 4001-4016
	+171.00							ROOM 3901-3916
	+167.00							ROOM 3801-3808 /CONFERENCE
	+163.00							ROOM 3701-3708 /CONFERENCE
36	+159.00							ROOM 3601-3608 /CONFERENCE
35	+155.00							ROOM 3501-3508 /CONFERENCE
34	+151.00							ROOM 3401-3408 /CONFERENCE
33	+147.00							ROOM 3301-3308 /CONFERENCE
32	+143.00							ROOM 3201-3208 /CONFERENCE
31	+139.00							ROOM 3101-3108 /CONFERENCE
30	+135.00							ROOM 3001-3008 /CONFERENCE
29	+131.00							ROOM 2901-2908 /CONFERENCE
	+127.00							ROOM 2801-2808 /CONFERENCE
	+123.00							ROOM 2701-2708 /CONFERENCE
	+119.00		-					
	+115.00							SERVICE FLOOR
	+111.00 +107.00							ROOMS 2401-2408 /CONFERENCE/OFF ROOMS 2301-2308 /CONFERENCE/OFF
	+107.00							ROOMS 2201-2208 /CONFERENCE/OFF
	+99.00					===[]		ROOMS 2101-2208 /CONFERENCE/OFF
	+95.00							ROOMS 2001-2008 /CONFERENCE/OFF
	+91.00							ROOMS 1901-1908 /CONFERENCE/OFF
	+87.00							ROOMS 1801-1808 /CONFERENCE/OFF
	+83.00							ROOMS 1701-1708 /CONFERENCE/OFF
	+79.00							ROOMS 1601-1608 /CONFERENCE/OFF
	i +75.00							ROOMS 1501-1508 /CONFERENCE/OFF
14	+71.00						[]	ROOMS 1401-1408 /CONFERENCE/OFF
13	+67.00							ROOMS 1301-1308 /CONFERENCE/OFF
12	+63.00							ROOMS 1201-1208 /CONFERENCE/OFF
			171 1 7 1	11 🗐 🗌				DOONE 1101 1100 CONFERENCE OF



CORE SYSTEM - STAIRS



Restaurants, bars and lounges are situated on several levels throughout the building. There are three breakfast restaurants, one on each sky lobby floor and one on the 2nd floor. There is a restaurant, a sky bar and café at the top, on floor 75-77. There are lobby bars/lounges and restaurant on the 1st and 2nd floor.

Above the top restaurant there are six floors with either very large suites or apartments. These exclusive facilities share two private express elevators besides the regular express elevators. The suites are about 320 m2 each.

All hotel rooms are placed on the outside of the corridor. Due to the shape of the building the hotel all rooms vary slightly in size and shape. The smallest rooms are situated at the back of the hotel while the larger rooms are situated on the front. As the building grows in thickness towards the base, there are several double rooms as well as some even bigger ones.

Hotel rooms are in the range 20-100 m2 (bath, closets etc, incl). The larger hotel rooms can easily be made into apartements.

CORE SYSTEM - ELEVATORS





There are conferences facilities spread on several floors. There is a cluster of conference rooms, with a fantastic view, on each sky lobby floor. On floor 27-49 there are several smaller, dark, conference rooms between the core and the hotel rooms. These floors have a "double or branching" corridor system. On floor 3-24 there are larger conference rooms, both dark and with a view.

There are office spaces on floor 27-49. A few of the larger spaces are rather deep and are planned to have open offices to utilize the light at the facade.

The entire 10th floor is a gym, sauna and recreation floor. At the very edge of the facade there is a 200m long track with a fantastic view of the Imperial Plaza and park as you run around the building.

AREA (raw)

- Total area: 140 000 m2
- Hotel rooms/apartm.: 33 000 m2
- Top suites/apartments: 4 000 m2
- Restaurants, kitchen, bar: 7 000 m2
- Office space: 18 000 m2
- Conference: 5 000 m2
- Corridors: 28 000 m2
- Gym, workout, spa: 2000 m2
- Shaft/elevators/stairs: 35 000 m2
- Service floor/shafts: 8 000 m2

DATA

- Height: 363m
- Number of hotel rooms (and/or apartments): 904
- Number of suites (and or apartments): 12
- Number of restaurants: 6
- Number of bars: 4



CORE SYSTEM - COMPLEX

THE IMPERIAL - a master thesis Chalmers University of Technology, 2012 Henrik Fogelklou





JZ 1223.00									
51 +219.00	€	>					In Indi		
50 +215.00		s	SINGLE ROOM	S/					
49 +211.00			ARGE SINGLE						
48 +207.00		^					NY Y		
47 +203.00		^					Hila	alit	11
46 +199.00		^							
45 +195.00		^				SINGLE ROOMS/	Li to		
44 +191.00		^				DOUBLE ROOMS			//
43 +187.00		^							/
42 +183.00		^		lobb		\mathbf{N}			
<mark>41</mark> +179.00		^				λ			
40 +175.00		1					lobk	by	
39 +171.00		1							
38 +167.00		1			o l'imi				
37 +163.00		^							
36 +159.00		^			CO Conf.	conference			
35 +155.00		^			lobby				
34 +151.00		^		restaurant	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	conf.		TIAN	\searrow
33 +147.00		^			conference	ce	lobb		
32 +143.00		^	SKYLC	DBBY/ lobb				HHH -	
31 +139.00		^	BREA	KFAST REST/					17-
30 +135.00		^	CON	FEERENCE				1 YEF	
29 +131.00		^							
28 +127.00		^		1		GYM/		Changin	g area
27 +123.00		^				SAUNA/			r li li li r
26 +119.00	€	>				WORKOUT		saunas	
25 +115.00									gym
24 +111.00		^			o store				gy
23 +107.00		^		° Ioun	SIDIE		lobb	py pool	
22 +103.00		^						200m track	
21 +99.00		^							
20 +95.00		^							
19 +91.00		^			evators •	check in counters			
18 +87.00		^					main entrance		
17 +83.00		^		area	info de		\bigotimes		
16 +79.00		^				main lobby	A (
15 +75.00		^			lounge	check out counters			
14 +71.00				Vin					
13 +67.00		^			XX				
12 +63.00		^							\mathbb{N}
11 +59.00	\wedge	^			store	v v			

GROUND FLOOR





+363.00		
+359.00	and the second sec	
85 +355.00		
84 +351.00		
83 +347.00	and the second	And the second se
82 +343.00		A Contraction of the second
81 +339.00	and the second	and a state of the
80 +335.00		A CONTRACTOR OF THE OWNER OF THE
79 +331.00	and the second	A Contraction of the second seco
78 +327.00		
77 +323.00		
76 +319.00		A CONTRACTOR OF THE OWNER OF THE
75 +315.00 74 +311.00		A LAND CONTRACTOR
73 +307.00	and the second	
72 +303.00		and the second second
71 +299.00		and the second
70 +295.00		and the second
69 +291.00		and a second second
68 +287.00		
67 +283.00		and a second second
66 +279.00		and the second
65 +275.00		
64 +271.00		and the second se
<mark>63</mark> +267.00		
<mark>62</mark> +263.00		and the state of the second state of the secon
61 +259.00		
60 +255.00		A CONTRACTOR OF THE OWNER
59 +251.00		and the second
58 +247.00		
57 +243.00		And a state of the
56 +239.00 55 +235.00		And a state of the
54 +231.00		
53 +227.00		
52 +223.00		
51 +219.00		
50 +215.00		
49 +211.00		
48 +207.00		
47 +203.00		North Martine Martine
46 +199.00	and the second sec	A State of the sta
45 + 195.00		And the second sec
44 + 191.00		A Contraction of the second
43 +187.00 42 +183.00		h
41 +179.00		
40 +175.00		and the second s
39 +171.00		and the second s
38 +167.00		N
37 +163.00		
36 +159.00		
35 +155.00		
34 +151.00		N
33 +147.00		
32 +143.00		
31 +139.00		
30 +135.00		
29 +131.00 28 +127.00		
28 + 127.00 27 + 123.00		
26 +119.00		
25 +115.00		
24 +111.00		
23 +107.00		C. Martine Martine
22 +103.00		
21 +99.00		
20 +95.00		
19 +91.00		
18 +87.00		
17 +83.00		
16 +79.00		
15 +75.00		
14 +71.00		
13 +67.00		
12 +63.00		

+363.00		
+359.00		
85 +355.00		
84 +351.00 83 +347.00		
83 +347.00 82 +343.00		and the second
81 +339.00		
80 +335.00		and a second
79 +331.00		A CONTRACTOR OF THE OWNER OF THE
78 +327.00		
77 +323.00	TRANSFERREN BANK TELL	1 *** * #*# ***
76 +319.00	and the second se	and an address of the second
75 +315.00 74 +311.00		and the second states
73 +307.00		and a second
72 +303.00		and the second
71 +299.00		and the second
70 +295.00		
69 +291.00		and the second second
<mark>68</mark> +287.00		and a second descent d
67 +283.00		and the second
66 +279.00 65 +275.00		and the second se
64 +271.00		
63 +267.00		
62 +263.00		
61 +259.00		A CONTRACTOR OF THE OWNER OWNER OF THE OWNER OWNE
60 +255.00		
59 +251.00		
58 +247.00 57 +243.00		
56 +239.00		and the second second second
55 +235.00		and the second
54 +231.00		
53 +227.00		
52 +223.00		
51 +219.00 50 +215.00		
49 +211.00		
48 +207.00		and the second second
47 +203.00		and the second second
46 +199.00		and the second sec
45 +195.00 44 +191.00		And and an and an and a strength of the streng
43 +187.00		A state of the second s
42 +183.00		
41 +179.00		
40 +175.00		A Contraction of the second
39 +171.00		N North Contraction of the second sec
38 +167.00 37 +163.00		
36 +159.00		
35 +155.00		
34 +151.00		
33 +147.00		
32 +143.00		
31 +139.00 30 +135.00		A Station of the second second
29 +131.00	1	A
28 +127.00		
27 +123.00		
26 +119.00		
25 +115.00		
24 +111.00		
23 +107.00 22 +103.00		
21 +99.00		
20 +95.00		
19 +91.00		
18 +87.00		
17 +83.00		
16 +79.00 15 +75.00		
14 +71.00		
13 +67.00		
12 +63.00		



WIND STUDIES

The building has been studied in a wind simulation at the speed of 5 and 30 m/s. The test was conducted at the 1st, 40th and 80th floor. Wind pressure data was also collected. The test has only been done on the single building, not on the entire district.

The tests show very little turbulence regardless of speed and level. Due to the shape of the building the wind accelerates along its sides in narrow streaks only to drop drastically on the back side. The increase in these narrow streaks is significant in the 30 m/s test where the wind reaches almost 45 m/s.

The pressure difference of both sides at 30 m/s is almost 4 KPa. Small "bubbles" with low pressure occur, oddly enough, up along the facade against the wind. There is nothing obvious in the facade that could explain the phenomena.

SHADOW STUDIES

Shadow studies have been made on the entire site. They have primarily been made to study the shadow of the hotel building. The shadow does not have a heavy impact on residential areas as a lot of the surrounding areas are logistic and/or industrial areas. The shadow might be a nuisance to future development of Ringön in the afternoon/evening.

The high density development of the entire district will in itself create rather dark streets and lower levels. The IMPERIAL will thus have little, to no, effect on light/shadow qualities. As the entire district layout is slightly tilted in a NW-SO direction there will be direct sunlight on street level at least once a day.

COLOR SCHEME

The color scheme is chosen with the most significant colors in the Empire design in mind; different shades of grey, black, white and a blood red.

FACADE

As mentioned, the façade mimics the stormtrooper armor in the sense it consists of two layers; a white layer on top of a black bottom layer. The black layer is a curtain wall glass facade with windows. The black glass is screen printed with white dots. The outer layer is a shield, or cover, suspended using consoles. The material in the outer layer is a perforated, laser cut sheet metal.

Both patterns, the screen print and the perforation, are abstract but has a definite technical expression - almost like a circuit or computer motherboard. The major difference between the two patterns is the scale. The screen print pattern is more obvious from a distance while the small holes in the sheet metal will invisible at a distance but visible close up.

The "double" layered facade creates a microclimate which will make it possible to open windows at the higher levels.





THE IMPERIAL - a master thesis Chalmers University of Technology, 2012 Henrik Fogelklou



Speed

Preasure

+363.00 +359.00	
85 +355.00	
84 +351.00 83 +347.00	
82 +343.00	
81 +339.00 80 +335.00	
79 +331.00	
78 +327.00 77 +323.00	
76 +319.00	
75 +315.00 74 +311.00	
73 +307.00	
72 +303.00 71 +299.00	
70 +295.00	
69 +291.00 68 +287.00	
67 +283.00	
66 +279.00 65 +275.00	
64 +271.00	
63 +267.00 62 +263.00	
61 +259.00	
60 +255.00 59 +251.00	
58 +247.00	
57 +243.00 56 +239.00	
55 +235.00	
54 +231.00 53 +227.00	
52 +223.00	
51 +219.00 50 +215.00	
49 +211.00	
48 +207.00 47 +203.00	
46 + 199.00	
45 +195.00 44 +191.00	
43 + 187.00	
42 +183.00 41 +179.00	
40 +175.00 39 +171.00	
39 +171.00 38 +167.00	
37 +163.00 36 +159.00	
35 +155.00	
34 +151.00 33 +147.00	
32 +143.00	
31 +139.00 30 +135.00	
29 +131.00	
28 +127.00 27 +123.00	
26 +119.00	
25 +115.00 24 +111.00	
23 +107.00	
22 +103.00 21 +99.00	
20 +95.00	
19 +91.00 18 +87.00	
17 +83.00	
16 +79.00 15 +75.00	
14 +71.00	
13 +67.00 12 +63.00	
11 +59.00	
10 +55.00 09 +51.00	
08 +47.00	
07 +43.00 06 +39.00	
05 +35.00	
04 +31.00 03 +27.00	
02 +23.00	
01 +19.00 00 +13.00	
	FACADE NW 1:500

+363.00		
+359.00		
85 +355.00 84 +351.00		
83 +347.00		
82 +343.00		
81 +339.00		
80 +335.00		
79 +331.00 78 +327.00		
78 +327.00 77 +323.00	10.0100.011.010	
76 +319.00		
75 +315.00		
74 +311.00		
73 +307.00		
72 +303.00		
71 +299.00 70 +295.00		
69 +291.00		
<mark>68</mark> +287.00		
67 +283.00		
66 +279.00		
65 +275.00 64 +271.00		
63 +267.00		
<mark>62</mark> +263.00		
61 +259.00		
60 +255.00 59 +251.00		
59 +251.00 58 +247.00		
57 +243.00		
56 +239.00		
55 +235.00		
54 +231.00	and the second sec	
53 +227.00 52 +223.00	and the second se	
51 +219.00	and the second s	
50 +215.00	and the second sec	
49 +211.00		
48 +207.00		
47 +203.00 46 +199.00		
45 +195.00		
44 +191.00		
43 +187.00	A CONTRACT OF A	
42 +183.00	A Contraction of the second se	
41 + 179.00		
40 +175.00 39 +171.00	1	
38 +167.00		
37 +163.00		
36 +159.00		
35 +155.00 34 +151.00		
33 +147.00		
32 +143.00		
31 +139.00		
30 + 135.00		
29 +131.00 28 +127.00		
27 +123.00		
26 +119.00		
25 +115.00		F
24 +111.00 23 +107.00		
23 +107.00 22 +103.00		
21 +99.00		
20 +95.00		
19 +91.00		
18 +87.00 17 +83.00		
16 +79.00		
15 +75.00		
14 +71.00		
13 +67.00		
12 +63.00 11 +59.00		
10 +55.00		
09 +51.00		
08 +47.00		
07 +43.00		
06 + 39.00		
05 +35.00 04 +31.00		
03 +27.00		
02 +23.00		
01 +19.00		
00 +13.00		14.4.118 199. Hat 2.4.9. 4



THE "LAYERED" FACADE



ARIAL VIEW OF THE NEW DISTRICT

THE IMPERIAL PLAZA

The hotel occupies four blocks in the district layout. By doing so a plaza, 160x160 m, is created around the building. The immediate surrounding is designed as a giant shutter as if the entire building can be lowered into the ground.

The ground materials are two types of large granite slabs, one dark and one bright color. The outer rim of the shutter is lined with a double row of trees, creating a walkway. The four outer corners of the plaza are designed as recreational squares with trees, making the transition to the IMPERIAL PARK more or less seamless.

THE IMPERIAL PARK

To the SW, in front of the hotel, lies a new park that acts as a large garden to a mansion. There is no question that the park, plaza and building are connected and entwined. Materiality and expressions are tuned with each other down to the minimum detail.

The cays are made accessible with the possibility of small boat harbors. The park adds to the city's green structure and will be a welcome addition to the north riverside as surrounding areas starts to be developed with residential housing.



THE IMPERIAL PLAZA

SHADOW STUDIES

March equinox









08.00



Summer solistice



06.30



TRAFFIC

The IMPERIAL AVENUE will be the new important connection between Backaplan and the city center. The avenue has trees on both sides and the tram runs down the middle, between car lanes. It is a traditional street with the exception of high rise blocks along its sides.

The master plan is a traditional quadrant plan where traffic can go in any direction. Crossing of IMPERIAL AVENUE will be limited to two points, one in each end of the district.

DISTRIBUTION TRAFFIC

Distribution will access The IMPERIAL in the basement, via either of two ramps. The ramps are located in the streets closest on each side, to the NW and SE. This has the effect no traffic is allowed on the IMPERIAL PLAZA, as access is basically cut off.

HIGH RISE COMPARISON

With a height of 363 m, The IMPERIAL will be the tallest building in Sweden. The closest would be Turning Torso in Malmö with a height of 190 m. The closest competitor (not counting technical or amusement towers) in Gothenburg is Gothia New Tower with a height of 100m. "Lilla Bommen", on the other side of the river has a height of 82m.

In comparison with tall buildings in the world, The IMPERIAL would be among the top 20 highest buildings (not counting buildings under construction) 2012. There are currently several buildings under construction in the 300-600 m range.

Anything, though, is a dwarf next to Burj Khalifa with an astonishing height of 828 m. The second tallest building in the world, Taipei 101, "only" reaches 508 m in to the sky.



FACADE NW 1:500











16.00

16.00

12.00



18.30



THE IMPERIAL - a master thesis Chalmers University of Technology, 2012 Henrik Fogelklou





BASIC LAYOUT OF MAIN LOBBY - plan 1:500



MAIN LOBBY - at the information desk looking towards the back entrance



MAIN LOBBY - elevation 1:100

MAIN LOBBY

The design of the main lobby hall has its origin in a spaceport hangar. Spatially it's a large slightly rectangular volume docked directly to the facade in one end. The facade becomes this way like a huge window, maximizing sunlight during the day and exposing the lit interior during the night. Inwards, the lobby ends at the information desk, situated in the curved outer wall of the core/shaft construction.

The lobby hall is divided in two sections, along the midsection, by large couches - arriving guests on one side and departing guests on the other. The check in/out counters is pulled back from the big space, creating a more confined space with a lower ceiling. The check in/out counters has technical panels, displaying readouts, flickering screens and flashing lights, along the back walls to mimic a control station. Adjacent to the departure counter is a large baggage room.

High columns with light panels support the main ceiling high above the guests. The main ceiling is made of black perforated steel plates with hidden lights. Six large



MAIN LOBBY - elevation1:100



lights are suspended from the ceiling. At the back end of the hall a large, slightly slanted information board is mounted. The information board displays any relevant information regarding the hotel as well as for surrounding areas, like time tables.

The lobby splits in two hallways at the information desk. These hallways leads to the secondary entrances/lounges and the elevator lounge inside the main core. Along the outer wall of the hallway you can access restrooms and stores. The restaurant and bars, on top of the stores/ restrooms, are accessed from the elevator lounge. From the restaurant and bars you have a view of the plaza outside the glass facade.

The elevator lounge is slightly elevated compared to the main lobby. The height difference results in three steps, making the spatial difference even more obvious. From the hallways you can access the elevator lounge via ramps. Close to the ramps are the VIP express elevators and a bar in the back wall of the information desk.









The back portion of the main floor is nonaccessible to the hotel guests as this area contains service functions, back offices, storages, etc. The staff restaurant is situated on the roof of the service elevator area.

Main materials:

- Wall panels: metal sheets of various technical designs
- Light panels: white acrylic covering hidden lights
- Floor: glossy metal sheets in a grid
- Ceilings: perforated black metal sheets with hidden lights

THE IMPERIAL - a master thesis Chalmers University of Technology, 2012 Henrik Fogelklou



MAIN LOBBY INTERIOR



BASIC LAYOUT OF CORE / SHAFT - plan 1:500





SHAFT / CORE - the massive elevator core



SHAFT / CORE - service bridges

THE CORE / SHAFT

The design of the main core/shaft has its origin in the Death Star core/shaft. The shaft is the void surrounding the core, which houses elevators, bridges, storage rooms and fire stairs. The shaft reaches from ground level up to the 74th floor. The core reaches from the basement to the 85th floor. The core together with the shaft wall is the major supportive structures in the building.

Four express elevators ends up inside the core at the 1st, 2nd, 26th, 51st and through the 75th to 83rd floor. There is also access to a fire stair and to the adjacent service elevators. In between these floors the main core void is still accessible via the service elevators and service bridges. The space is used as storage, ie cleaning, linen etc.

After exiting an express elevator, hotel guests has to cross a bridge to reach the secondary elevators to continue their journey. The opposite door of the bridge is shut until you reach about half way across. At this point a sensor automatically slides it open. The effect is to keep the shaft as dark as possible and then like magic display the view out through the glass facade by the secondary elevators.

ELEVATOR DIAGRAM





SHAFT / CORE - the express elevator core

The shaft also serves as one of the major vertical communications regarding media. Pipes, valves, fans and all sort of electronics and technical installations cover parts of the inner wall. Suspended lights hover over the bridges. Glass railings enhance the feeling of the bottomless shaft. Safety nets are applied a few stories below each bridge.

While sky lobby bridges only exists every 23rd floor or so, service bridges eject from the core at every floor, connecting the core and shaft wall like a backbone or spine. Along the shaft wall light panels cover the supportive main columns.

The elevators are round and have sliding doors, hidden inside the tube when opened. The tubes have narrow rectangular windows at each floor to give the hotel guest a glimpse of the shaft while riding the elevator.







CORE / SHAFT - section 1:100



The same design principle is applied in the main hotel corridors (where there is no access to the core) – narrow rectangular windows reveal the shaft on the other side of the wall.

Main materials:

- Wall panels: metal sheets of various technical designs
- Light panels: white acrylic covering hidden lights
- Floor: laser printed sheets of metal
- Ceilings: perforated black metal sheets with hidden lights

THE IMPERIAL - a master thesis Chalmers University of Technology, 2012 Henrik Fogelklou



SHAFT / CORE - the bridge connection the express elevator core with the secondary elevators



BASIC LAYOUT OF CORRIDOR - plan 1:500





Express elevators - plan 1:1000

Main elevators - plan 1:1000







CORRIDOR - room door and display



CORRIDOR - skylobby level



THE CORRIDOR

The design of the main hotel corridors is a direct effect of the design choice regarding the shaft/core: it slowly turns around the shaft wall. The corridor connects the opposing secondary elevator shafts and their respective lounge. It's thus possible to walk all the way around an entire floor, making it easier to empty a floor should so be required for any reason.

The elevator lounge on each floor varies with the height of the building but share the same principle with four elevators, a fantastic view of the surroundings through the glass facade (floor to ceiling) and a few tables and chairs (1st to 50th floor). Adjacent to the elevator lounge, behind one pair of elevators, is the main stairs, connecting every floor. Fire stairs are situated on the other side of the lounge, behind the other pair of elevators.

The shaft is revealed through narrow rectangular windows on the other side of the shaft wall. These windows are black, non-see through from inside the shaft, but transparent from within the corridor.



Service elevators - plan 1:1000

E







Suite elevators - plan 1:1000

Main stairs - plan 1:1000



CORRIDOR - room level lobby

The ceiling is made up of beams in a radial pattern with its theoretical center in the core/shaft. Backlit acrylic panels are mounted in between the beams. This bright ceiling effect differs radically from the dark and dampened core/shaft.

The main supporting columns in the shaft structure are covered with light panels as inside the shaft. Columns in the outer corridor wall also have light panels. The wide door frames to each individual hotel room have mounted light panels.

A digital display by each door contains not only room number but also information regarding the hotel in general. They can also be used as temporary signs, ie exit signs, should this be required.

Above the backlit ceiling is enough space to house all media coming from and to the shaft and hotel rooms; ie ventilation, sewage, cables etc.











Main materials:

٠

- Wall panels: metal sheets of various ٠ technical designs
- Light panels: white acrylic covering ٠ hidden lights
- Floor: laser printed sheets of metal ٠
- Ceilings: backlit acrylic between beams

THE IMPERIAL - a master thesis Chalmers University of Technology, 2012 Henrik Fogelklou



CORRIDOR INTERIOR



BASIC LAYOUT OF ROOMS - plan 1:500





ROOM INTERIOR - desk and chair



ROOM INTERIOR - entrance corridor

THE HOTEL ROOM

The standard single room is designed in coherence with the core, shaft and corridor. All doors are sliding and are hidden inside thick walls when open. The basic layout is a small hallway with storage on one side and a bathroom on the opposite while the main room is straight ahead.

The main room has one large window structure with open able sections. The room is furnished with a standard double bed, a desk and two chairs. A large screen is mounted in the wall above the desk.

The small bathroom contains a toilet, sink and a shower, all in white colors.

Digital displays, two in the hallway and one in the main room, control everything in the room; doors, lights, radio, room service, hotel information etc.

Above the ceiling is enough space to house all media coming from and to the corridor; ie ventilation, sewage, cables etc.

Main materials:

• Wall panels: metal sheets of various

HOTEL ROOM - plan 1:100





- technical designs
- Furniture: birch and steel
- Bathroom: white ceramic tiles and furniture
- Floor: laser printed sheets of metal
- Ceilings: perforated black metal sheets with hidden lights

HOTEL ROOM - section 1:100

ROOM INTERIOR - looking at the window











ENDING NOTES

This is a fan product / Master thesis, in architecture, at Chalmers University of technology, Gothenburg, Sweden.

Screen captures within the text columns are from Episode 4-6.

STAR WARS and related properties are trademarks in the United States and/or in other countries of Lucasfilm Ltd. and/or its affiliates. © 2011-2012 Lucasfilm Entertainment Company Ltd. or Lucasfilm Ltd. All rights reserved.

THE IMPERIAL - a master thesis Chalmers University of Technology, 2012 Henrik Fogelklou



ROOM INTERIOR - lying on the bed watching a movie