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# Hyundai Exodus - Exiting Tradition, Entering New Boundaries of Designing

“Design a Hyundai Motors Visual identity”

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A written component completed in partial fulfillment of the requirements for the degree of Masters of Design at Massey University, College of Creative Arts, Auckland, New Zealand.

## Abstract

This research project was conducted to fulfill a Master of design specialising in Transport Design, at Massey University's Auckland School of Design. It was aimed to create a new visual identity for Hyundai Motors by designing a car model forecasting and utilising methods pertinent to Hyundai Motors. Simultaneously the designed car model focuses on specifically accommodating the needs of surfers. The whole philosophy behind this particular model involves three important elements of Visual Identity as pointed out by Warell; recognition, comprehension and association. As a result, in each stage of the design process, the model was designed and amended continuously to incorporate these three issues to create a design for Hyundai that targeted the surfing market.

This research sets out a departure point for designing differentiated vehicle concepts for Hyundai by targeting a niche market. The Exodus was designed for a particular demographic and a subculture. The targeted market began with participants of Extreme Sports such as snowboarding, windsurfing, and surfing, but was narrowed down to surfers, because they had specific requirements that were not well catered via by existing vehicles. These requirements also translated into specific design features that allowed the development of a strongly differentiate of vehicle concept. In this way the Exodus represents an example of how specific and user needs can drive differentiated design in both a practical and visually expressive way.

This process was facilitated by way of three major research stages. Firstly, a field trip to Piha, one of Auckland's most popular surfing beaches was conducted in order to find out more about surfing culture and as a general means of vehicle observation. Secondly, informed interviews were conducted in order to gather qualitative information to generate specific user requirements and inform design development that would meet the needs of surfers. Existing car designs types were analysed to extract any design features and attributes suitable for surfers. Thirdly, a comparative analysis of two established vehicle brands, alongside Hyundai was undertaken in order to reveal the weaknesses of Hyundai's visual identity. This phase then culminated in a research model specifically aimed at creating a new design image for them.

Based on requirements developed using the above methods, the design were developed through an interactive process of sketching, modeling and critique. The aim was to create a car with an advanced design that met the functional needs of the surfing market. The main focus was to create a specific, differentiated brand image based on association, comprehension and recognition for the Hyundai.

## Table of Contents

1.0	Introduction
2.0	Background
2.1	Hyundai
2.2	Surfing History
2.3	Surfing New Zealand
2.4	Surfing Culture
3.0	Literature Review
3.1	Visual Product Identity
3.1.1	Brand Value
3.1.2	Consistent Recognition
3.1.3	Design
3.2	Research Context
3.3	Design Assessment Criteria
3.4	Research Questions
4.0	Methodology
4.1	Theory
4.1.1	Qualitative Interview & Case Studies
4.1.2	Outcome of the Surfers Interviews
4.2	Case Study: BMW
4.2.1	Background
4.2.2	Visual Identity
4.3	Case Study: Lexus
4.3.1	Toyota - Creating a Premium Visual identity, the Lexus
4.3.2	L - Finesse
4.3.3	Visual Identity
4.4	Case Study Summary

- 5.0 Design Method: "Creating Unique Car"
  - 5.1 Identifying Needs of the Niche Market Targets: Piha Field Trip
    - 5.1.2 User Analysis
  - 5.2 Vehicle type Consideration
    - 5.2.1 UTE
    - 5.2.2 SUV
    - 5.2.3 Minivan
    - 5.2.4 Station Wagon
  - 5.3 Target Vehicle Type
- 6.0 Comprehension
  - 6.1 Form
    - 6.1.1 Dune Buggy
    - 6.1.2 Body & Wetsuit
    - 6.1.3 Rip Curl Interior
  - 6.2 Function
    - 6.2.1 Bonnet Seating Unit
    - 6.2.2 1+2+1 Interior Layout
    - 6.2.3 Sleeping Area
    - 6.2.4 Change Area (rear hatch door open).
    - 6.2.5 Separate Wetsuit storage unit, to avoid get wet interior
    - 6.2.6 Surfboard Rack
- 7.0 Association
  - 7.1 Targeting a Niche Market
  - 7.2 Difficulties of Surfers Cars
- 8.0 Recognition
  - 8.1 Start of a New Branding Image & Visual Impact
  - 8.2 New Beginning

9.0	The Real model: Exodus
9.1	Design One
9.1.1	Analysis
9.2	Design Two
9.2.1	Analysis
9.2.2	Direction
9.3	Final Design Development
9.3.1	Package Drawing
9.3.2	Quarter view Sketches
9.3.3	Clay Modelling
9.3.4	Further Development Sketches
9.3.5	CAD (Rhinceros)
9.3.6	Final Model Process
10.0	Conclusion
10.1	Recognition
10.2	Comprehension
10.3	Association
10.4	Further Development
11.0	Appendices
	Appendix 1 - Interview with Hyundai Senior Designer
	Appendix 2 - Comments based on Exodus from Hyundai Senior Designer (E - Mail)
	Appendix 3 - Surfer Interview Questionnaires
12.0	Reference List

## List of Figures

- Figure 001: Hyundai Exodus Concept  
Figure 002: Vehicles of Hyundai Motors  
Figure 003: Duke Paa Kahanamoku  
Figure 004: Surfing in New Zealand  
Figure 005: Surfing Environment  
Figure 006: Apple Products  
Figure 007: Samsung Mobile phone Advertisement  
Figure 008: Type of product (function, use, purpose, maker).  
Figure 009: Characteristics of product (properties, performance, mode of use).  
Figure 010: Product Values (origin, brand, heritage).  
Figure 011: Model of VPI (Visual product Identity).  
Figure 012: Recognition (Series of Apple Ipad).  
Figure 013: Comprehension (Apple I - phone).  
Figure 014: Association (Star sports players with nike product).  
Figure 015: 1948 Chevrolet Woody Wagon & 1956 VW Kombi.  
Figure 016: Emotive connection with surfer.  
Figure 017: Reference images of Key themes.  
Figure 018: Early BMW models.  
Figure 019: Features of BMW models.  
Figure 020: BMW Z4 explains about the "Flaming Surface".  
Figure 021: The Iconic BMW's Visual Identity.  
Figure 022: BMW GS Concept.  
Figure 023: 1989 Lexus LS 400  
Figure 024: Lexus LF - Series Concept car.  
Figure 025: Development of Toyota Motors.  
Figure 026: Lexus IS.  
Figure 027: Observations of Surfers.  
Figure 028: User's Vehicle analysis based on Mazda 3 Station Wagon).  
Figure 029: User's Vehicle analysis based on Mazda 3 Station Wagon.  
Figure 030: 2008 Holden SS UTE.  
Figure 031: 2005 BMW X5.  
Figure 032: 2001 VW Kombi Concept.  
Figure 033: 2005 AUDI A4 Advant.  
Figure 034: Environment of Piha Beach Car park.  
Figure 035: Hyundai Exodus Concept inspired by Dune Buggy.  
Figure 035: Hyundai Exodus Concept inspired by Dune Buggy.  
Figure 036: Hyundai Exodus Concept inspired by Dune Buggy.  
Figure 037: Hyundai Exodus Concept inspired by Dune Buggy.  
Figure 038: Hyundai Exodus Concept emphasis Wet suit.  
Figure 039: Hyundai Exodus Concept emphasis Wet suit.  
Figure 040: Hyundai Exodus Rip Curl Interior.  
Figure 041: Hyundai Exodus Bonnet Seat Unit.  
Figure 042: Hyundai Exodus Bonnet Seat feature.  
Figure 043: Hyundai Exodus Interior Layout.  
Figure 044: Hyundai Exodus Interior Sleeping Unit.  
Figure 045: Hyundai Exodus Storage Unit.  
Figure 046: Hyundai Exodus Change Area.  
Figure 047: Hyundai Exodus Change Area.  
Figure 048: Hyundai Exodus Door open.  
Figure 049: Hyundai Exodus Surfboard Rack.  
Figure 050: Hyundai Exodus Surfboard Rack.  
Figure 051: Hyundai Exodus Associated to star surfers.  
Figure 052: Hyundai Exodus Concept.  
Figure 053: Hyundai Exodus Design one foam model testing.  
Figure 054: Hyundai Exodus Design one ideation sketches.  
Figure 055: Hyundai Exodus Design one ideation sketches.  
Figure 056: Hyundai Exodus Design one ideation sketches.  
Figure 057: Hyundai Exodus Design one ideation sketches.  
Figure 058: Hyundai Exodus Design two ideation sketches.  
Figure 059: Hyundai Exodus Design two ideation sketches.  
Figure 060: Hyundai Exodus Design two ideation sketches.  
Figure 061: Hyundai Exodus Design two ideation sketches.  
Figure 062: Hyundai Exodus Design two Testing model Process.  
Figure 063: Hyundai Exodus Design two ideation sketches.  
Figure 064: Hyundai Exodus Design two Test Clay model Process.  
Figure 065: Hyundai Exodus Design two Test Clay model Process.  
Figure 066: Beach Buggy.  
Figure 067: Hyundai Exodus Final Design ideation sketches.  
Figure 068: Hyundai Exodus Final Design ideation sketches.  
Figure 069: Hyundai Exodus Final Design Proportion Analysis.  
Figure 070: Hyundai Exodus Final Design Package Drawing.  
Figure 071: Hyundai Exodus Final Design Package Drawing.  
Figure 072: Hyundai Exodus Final Design Package Drawing.

Figure 073: Hyundai Exodus Final Design Quarter view sketches.  
Figure 074: Hyundai Exodus Final Design Quarter view sketches.  
Figure 075: Hyundai Exodus Final Clay Modelling Process.  
Figure 076: Hyundai Exodus Final Clay Modelling Process.  
Figure 077: Hyundai Exodus Final Clay Modelling Process.  
Figure 078: Hyundai Exodus Final Clay Modelling Process.  
Figure 079: Hyundai Exodus Final Clay Modelling Process.  
Figure 080: Hyundai Exodus Final design development Sketches.  
Figure 081: Hyundai Exodus Final design development Sketches.  
Figure 082: Hyundai Exodus Final design development Sketches.  
Figure 083: Hyundai Exodus Final design development Sketches.  
Figure 084: Hyundai Exodus Final design development Sketches.  
Figure 085: Hyundai Exodus Final design development Sketches.  
Figure 086: Hyundai Exodus Final design development Sketches.  
Figure 087: Hyundai Exodus Final design development Sketches.  
Figure 088: Hyundai Exodus Final design further clay modelling process.  
Figure 089: Hyundai Exodus Final design further clay modelling process.  
Figure 090: Hyundai Exodus Clay model scanned into CAD.  
Figure 091: Hyundai Exodus Rhinoceros modelling process.  
Figure 092: Hyundai Exodus Final modelling process.  
Figure 093: Hyundai Exodus Final modelling process.  
Figure 094: Hyundai Exodus Final modelling process.  
Figure 095: Hyundai Exodus Final model.  
Figure 096: Hyundai Exodus Final model.  
Figure 097: Hyundai Exodus Final model.  
Figure 098: Hyundai Exodus Final model.  
Figure 099: Hyundai Exodus Final model.  
Figure 100: Hyundai Exodus Final model.



Figure 001: Hyundai Exodus Concept

## 1.0 Introduction

The main aim of this study is to develop a visual identity for Hyundai Motors through design research. This research will explore Hyundai's visual identity and its importance and implications for such a global automotive company. The research will target the niche market of surfing in order to develop a vehicle that aesthetically reflects the key aspects of this lifestyle.

## 2.0 Background

### 2.1 Hyundai

Hyundai, a Korean company well-known for its construction and ship building, joined in the global competitive market of car production in the 1970's at first with Ford as a major stakeholder. The Hyundai Group was first established in 1947 by Chung Ju-Yung, who has successfully developed Hyundai into a world-renowned brand. He was motivated to invest in an automotive brand in 1960's and in 1967, established Hyundai Motor Company (The Hyundai Way, n.d). Its first model, the Cortina, was released in cooperation with the Ford Motor Company in 1968. In 1975, the Pony, the first Korean car was released, designed by Giorgio Giugiaro of Italdesign with powertrain technology provided by Japan's Mitsubishi Motors. In 1991, the Company succeeded in developing its first proprietary gasoline engine, the four-cylinder Alpha and transmission, thus paving the way for technological independence (Wikipedia, n.d). Hyundai Motor Company grew quickly following the footsteps of Toyota, as their priority was to create economic vehicles, which constraint their designs to meet market cost target.

Despite the reputation Hyundai has built for its brand in automobiles globally (Jang, B,W, 2005), their visual identity is still not as strong as other brands within the automotive segment, but the importance of this is not lost on them and work is being done to remedy this. Hyundai shows many creative concept cars today (Car Body Design 2007), which are intended to improve the perception of their brand. The challenge set for Hyundai is not to stop at experimenting but to move on to the next step of creating a flowing continuous image and identity to establish a lasting impression in the minds of the consumers (Jin, H, J and Kwon, Y, J, 2006)



Figure 002: Vehicles of Hyundai Motors

## 2.2 Surfing History

Surfing originated in Polynesia over 4000 years ago (Surfing in New Zealand, n.d.) and was not seen as a mere recreational activity or hobby. It was viewed as both a status symbol and an art. It was an integral part of cultures throughout the Pacific with ruling classes having exclusive access to the best beaches. The chiefs of tribes were generally the best surfers and had the privilege of the best boards, sculpted from the best trees. The general population could only prove themselves worthy of access to the better beaches through their surfing skill.



Figure 003: Duke Paoa Kahanamoku

In the early 20th century, surfing was reborn in Hawaii. This resurrection is credited to two men, Duke Kahanamoku and George Freeth. Freeth was one of the original Waikiki Beach Boys and is attributed with taking surfing to the United States mainland from Hawaii. This is little in comparison with the worldwide reach that Duke Kahanamoku gave to the sport. It was these men and other early pioneers who mapped out the lifestyle that became synonymous with surfing. Adventure and non-conformity were at the heart of the culture and remain so to this day.

## 2.3 Surfing in New Zealand

It was Kahanamoku who introduced surfing to New Zealand at Lyall Bay, Wellington in 1915 (Surfing in New Zealand, n.d) on a 10 foot, finless, solid wood board. The sport carried on relatively unknown to most in New Zealand, largely due to the popularity of surf lifesaving until after the Second World War. In 1958, Rick Stoner and Bing Copeland came to Piha with their light, modern “Malibu” surfboards; their demonstration to awestruck onlookers started the New Zealand surfing culture as it is known today. With the relative excess of wealth and leisure time of the 1950’s (Brown, 1997) and the development of lighter, shorter boards, more and more people took to surfing. Recent Hillary Commission statistics show that 75, 000 more New Zealanders surf than play our national sport, rugby. Surfing has become more professional in recent years with the help of corporate sponsorship and the influence of organisations such as Surfing New Zealand.



Figure 004: Surfing in New Zealand

## 2.4 Surfing Culture

Surfing culture is often associated with freedom and non-conformity. Although surfers come from all demographics, the associated emotion and spirit remains common. Rather than just being a hobby or sport, for many it is an integral part of their lifestyle. The eternal search for the perfect wave and the ensuing harmonious interaction becomes an insatiable obsession with a common rejection of socio-cultural norms.

As a popular culture, surfing has been the epicentre of inspiration for many bands such as the Beach Boys of the 1960s (Flint, 1999) and the subject of countless movies. The culture is now perpetuated through the media to promote a US\$ 7 billion global industry, controlled by companies such as Billabong, Quiksilver and Rip Curl (Brown 1997). This aspect of modern surfing is consumed and supported by an even larger culture including not only surfers, but also those who identify with the lifestyle (Flint 1999).

There are several different types of vehicle that could be designed to suit surfers' needs. At this stage of the study it may seem obvious that a station wagon currently best fulfils the needs of most surfers but this will be analysed in further sections of this thesis to better clarify what vehicle type has the potential to best suit a surfer.



Figure 005: Surfing Environment

### 3.0 Literature Review

#### 3.1 Visual Product Identity

Visual Product Identity (VPI) is giving a product or brand meaning. Kapferer (1994) states, “a product is the first source of brand identity for companies.” Identity does not exist without having a greater knowledge of the product. Product identity is represented by three key areas; “what it is, how it is, and what values it connotes” (Warell, 2005). Through visual product form, we are able to understand the conception of meaning with product semantics. According to Mono (1997) and Warell (2001) semantics is used to explain how design contributes to building product identity through the creation of the meaning of signs, or ‘making sense of things.’ As well as this, semantics is used to describe the relationship between brand values and product design, through the process of ‘semantic transformation.’

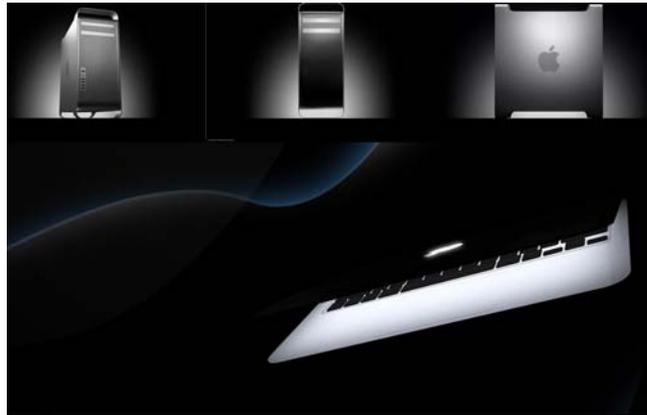


Figure 006: Apple Products



Figure 007: Samsung Mobile phone Advertisement

### 3.1.1 Brand Value

Two important purposes of product design are to create a product aesthetic and identity. This is done to make the product appealing, and to give it meaning.

Product aesthetics can be defined as senseous delight or simply the pleasure attained from sensory perception (Hekkert, 2006). Vihma (1995) explains the essential difference to aesthetics, is that identity works not through presentation (of the object) but through representation (of something else). This definition implies that identity must be understood through processes involving cognition. This aesthetic part of product experience is based on the attribution of meaning through signs in the semiotic tradition of Pierce (1931-58).

An important concept used in the analysis of product design is recognising two aspects of identity; “identity as an attribute of a thing, which is shared with something else (similarity); and identity as a unique attribute of a thing (dissimilarity).” (Warell, 2005). Understanding the concept of identity is defined by contemporary dictionaries as “sameness of essential or genetic character in different instances.” This idea is reflected through the processes of product design. Manufacturers try to produce products that create consistent recognition of the brand throughout their range of products by sharing visual cues and specific unique characteristics. Warell (2005) explains that if product families have visual inconsistencies, this will result in weak brand recognition. Visual recognition is the first step in identity creation, and is a crucial matter to be considered by design management during the product design process.

Whether consciously or subconsciously we elicit certain information from products that ideally provide three forms of identification:

- 1) Type: "What the product is" (function, use, purpose, maker)
- 2) Characteristics: "How it is" (properties, performance, mode-of-use)
- 3) Values: "What it stands for" (origin, brand, heritage)

There are two main factors that notify us whether or not visual references are identified. "One is related to the clarity and consistency of the visual product form in itself, which in turn is dependent on the quality of the underlying design process. The other one is related to the audience; how appropriate and legible the identification is for the target group." (Warell, 2005) To create successful identification, the product needs to have communication that is consistent, clear, and appropriate through elements of product form that are strong and meaningful.



Figure 008: Type of product (function, use, purpose, maker).



Figure 009: Characteristics of product (properties, performance, mode of use).



Figure 010: Product Values (origin, brand, heritage).

### 3.1.2 Consistent recognition

A quality product will stand for something more meaningful than its primary purpose by being explained through semiotics signs (Warell, 2005). This is the key to expressing brand identity, and can be communicated through three types of signs “that explain the relation between the object (the signified; the ‘meaning’ of the sign) and the sign vehicle (the signifier; the form that the sign takes)” (Warell, 2005).

Icon: can be defined as a sign or a representation that stands for its object by virtue of resemblance or analogy to it (Dictionary.com, n.d.). An example is a graphical user interface; a picture on the screen that represents a specific file, directory, window, or program. Clicking on an icon will start the associated program or open the associated file, directory, or window. The mind is required to see the likeness for the sign to work and can derive information about its signified.

Index: guides, points out, informs, or directs, and has a causal relation or physical connection to its signified. Warell (2005) explains that the association between the index and its object is logical and organic; i.e. inseparable. An example of this idea is ‘smoke is an index of fire’. Indices are directly observable signs that can act as a reference to events that are not directly perceivable.

Symbol: visual representation that suggests an idea by association or convention. The observer decides the connection between the symbol and the object, therefore it has subjective, conventional meaning, which through experience is learned or acquired. An example of this is, the eagle seen as a symbol of the United States. Symbols do not tell us anything; they require interpretation to know the true meaning

Symbolic interpretation is but one process used to identify meaning in product design, along with branding and marketing. In this field symbolic identification is of special interest, meanings must become conventionalised by being introduced and established through channels involving marketing communication.

### 3.1.3 Design

For a product to be identified, visual references need to be appropriate, consistent and clear. In order for a product to reach its desired market, these three factors are of crucial importance to design management.

Warell (2005) states that Visual Product Identity (VPI) can be dependant on three modes of identification; 'recognition', 'understanding', and 'interpretation', which relate to the three types of signs. However the relationship between the form of identification and type of sign is not unconditional; to a certain extent the three modes refer to how the various signs are identified through the perception of the viewer.

"Although each mode in the model is presented individually, they can never exist in isolation in a product design, but are intertwined and impossible to distinguish at a phenomenological level" (Warell, 2005).

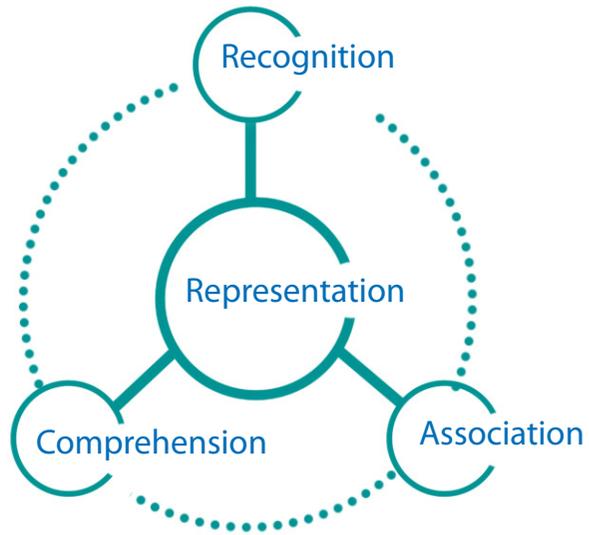


Figure III: Model of VPI (Visual product Identity).



The first mode, 'recognition', is based on identifying with something instantaneously through a similarity or physical resemblance. For this to work, a likeness with what is to be identified must already be established. "Recognition, therefore, requires the presence of iconic signs, a visual likeness between one thing (the icon) and another (the object)" (Warell, 2005). Joslyn(1997).

Through similar visual elements, a certain brand can provide 'design cues' that are recognized between one product and another. This recognition requires 'visual commodities'; the use of similar or identical elements in various instances, and can be achieved at different levels to reveal more or less.



In automotive design, consistent recognition is extensively used and is dependant on reoccurring design cues to give identifiable characteristic elements to the brand. Warell (2005) explains how if a product has no similarities to other products within a brand it will not be identified on the level of recognition. In spite of this, though the acknowledgment of meaning in other modes, identification is still able to occur.

Figure D12: Recognition (Series of Apple Ipod).

The second mode, 'comprehension', relates to how through visual references, characteristics of the product; such as the products properties and performance, are identified. Characteristics are important as they teach us the products operation and mode-of-use, as well as expressing its properties, which in turn, "tells us about the product itself" (Warell, 2005).

Achieving this form of meaning acknowledgment, depending on the type of visual reference, can be done through two types of signs. The first form is an indexical sign; it operates through a tangible connection or fundamental relation between the signifier and the object. "An example of this is design quality; the even gap and tight flush between different automobile body panel surfaces indicates a level of quality" (Warell. 2005). This outcome is expected when a product is the result of a high precision manufacturing process. The second form is a symbolic sign; it operates through a subjective relationship between the signifier and the meaning. The established meaning of symbols may vary between one market group and another, as the decoding of symbols is done within a given frame of reference.



Figure D13: Comprehension (Apple I - phone).



Figure 014: Association (Star sports players with Nike product).

The third mode, 'association', works by communication and the meaning related to values and strategic messages, through symbolic signs. We associate visual references based on particular conditioned processes of coding. According to Warell (2005), customers extensively choose products based on the values they represent; they use the image of the product brand to reflect personal values. In other words, it is a means of communication for an individual whereby the association relates to distinguishing personality of an individual. In market communication channels, the meanings of signs are established primarily to serve as brand values and interpretations within interpretive communities. Associative meaning-making process is a crucial task in which companies must 'keep control' over for strategic design management. Examples of designs based on intuition in the past have shown that they were not based on any strategic decisions and contexts holds uncertainty.

Govers and Mugge also talked about product attachment as "the emotional bond experienced with a product." (Govers, P. C. M, n.d)). When a consumer finds this kind of product attachment and can associate to it, the period of usage becomes longer allowing utilitarian benefits. People become more attached to products with a high product-personality congruence than the one with a lower product-personality congruence. It is visible that images relating to their self concept are that much more significant to people in today's crowded marketplace.

A specific focus just on building a visual identity based on association, comprehension and recognition may seem limiting, but it sets a specific framework to work within. It can rather be a useful approach for a company such as Hyundai, which has a broad range of designs to create a differentiated specific image for them. It is on these grounds that this project was carried out, where association, comprehension and recognition was utilised in creating an experimental model just for Hyundai and just for surfers or people with a similar kind of lifestyle.

### 3.2 Research Context



Figure 015: 1948 Chevrolet Woody Wagon & 1956 VW Kombi.

The main question to be answered in terms of the target market is why approach this research through a niche target market when Hyundai is a manufacturer with mass-market appeal. Accepting that Hyundai's new visual identity will be associative, suggests that the initial target market will need to be a type of market with current or potential wide-reaching global appeal. It also has to be considered that Hyundai does not intend to form a new visual identity by way of a new brand as Toyota has done with Lexus, rather, exhibit a higher-level of creativity and attract a new type of consumer to the brand.

Surfing has been selected as the target market based on its global appeal and cult following as well as the fact that the age range of surfers is extremely broad. It is also appropriate that since the rebirth of surfing, automobiles have played an important role in the surfing lifestyle, with cars like the Woody and Kombi being adapted and exploited to suit the surfers' needs. It is the view of this research that a vehicle designed with surfers as the primary target market will also have a wider reaching appeal to consumers with similar needs. The targeted age range would subsequently be 20 to 40 year olds.

It is the aim of this design research to propose a vehicle design that will establish a new specific visual identity for Hyundai Motor Company. The design is intended to establish a form language for the company to achieve a more coherent and instantly recognisable three-dimensional form that can be translated to future vehicles regardless of body style.



Figure 016: Emotive connection with surfer.

From initial research and a review of the VPI concept the following requirements have been established:

- o Hyundai needs an associative visual identity.
- o To achieve this, a niche market needs to be targeted, which will be surfing and more precisely, the surfing culture within New Zealand. Therefore the design needs to be aimed at surfers and the emotions, feelings, forms, energy and style that draw them to their sport.

Separate to the surfing influence, the design must exhibit an appropriate proportion and balance, visual coherence between form and function and an obvious link and flow from exterior to interior. Initially the design process used will be freehand sketching and rendering, both on computer and manually. From this, models will be carved from foam for further form development. Clay modeling will be utilised and if need be, further sketching until a final design is prepared to be taken into Computer Aided Design for final refinement and engineering for output. The final model will be machined from the CAD file and an animation produced for presentation.

### 3.3 Design Assessment Criteria

There are several criteria that the final design from this study must adhere to. Initially the design will take the form of loose concepts that will be thoroughly explored early on in order to fully understand their potential implication for visual identity. Further refinement of these criteria will come through all phases of the process in order to develop the strongest possible solution.

Initial Criteria (as generated by field investigation):

- o Reflection of surfers' emotive connection with surfing.
- o Exhibition of surfers' interaction with nature.
- o Station Wagon crossover form with the possibility of Sports Utility influence.
- o Inclusion of solutions to the problems surfers have identified with current vehicles and foreseeable problems that may be encountered with future designs.
- o Cater for wet environment
- o Surfboard Storage



Figure D17: Reference images of Key themes.

#### Key Themes

- o Extreme
- o Dynamic
- o Balanced
- o Usability
- o Tension
- o Adrenaline
- o Freedom

### 3.4 Research Questions

The objectives raised and focused on in this essay will be as follows:

- To research and analyse the field of the Hyundai automotive brand identity and its design semantics.
- To conduct case studies on other automotive brands which have begun as unknown in the automotive industry as well and compare them with the case of Hyundai in trying to create a specific unique image for Hyundai.
- To explore a specific sub cultural identity and forecast visual identity through designing a car suitable for that sub – culture (surfer) to help establish a novel Hyundai automotive design brand identity.
- To propose design icons, indexes and symbols through an integrated motor vehicle concept that could establish a brand identity for Hyundai.
- To evaluate the design outcomes and their relationship to the visual identity established throughout the project.

## 4.0 Methodology

### 4.1 Theory

The design proposal is based on the theoretical work of Warrel (2005). This work identifies the importance of comprehension, association and recognition in creating a visual identity for manufactured products such as motor cars.

#### 4.1.1 Qualitative: Interviews & Case Studies

The Piha field trip established the base for conducting interviews with surfers in New Zealand. It also assisted greatly in defining the true needs and problems surfers face each time they set off for a surfing adventure in their personal cars.

#### 4.1.2 Outcome of the Surfers Interviews

The results of the interview were used to get a general idea of the culture of surfers and the types of cars they had in order to identify the weaknesses the cars may have in meeting the needs of surfers in New Zealand.

It was found that the surfing population in New Zealand consisted mostly of 20 to 40 year old single males. The majority of the surfers said they would surf about once a week with one or two of their “mates”, while the extreme surfers said they would surf about three or four times a week on their own and with some “mates” on the weekends.

The whole joy of surfing was about the fact that it was an individual sport amidst natural environment. A setting where full freedom is experienced while releasing the stresses that modern life creates. Though most often in their normal every day lives, they tended to be employees of companies, rather than self-employed, surfers seemed to focus not so much on the financial side or the routine of their lives but rather sought every opportunity for dynamism. This may be why they headed out into nature to experience the balance and unexpected tension the waves provide. They quite often sought car designs to try to express this urge of freedom or to at least meet their needs when going surfing, but were disappointed that there was not a specific car that met their specific surfing needs.

What is significant about these outcomes were that they provided several of the main ideas and basis for the interior seating configuration as well as the sleeping area within the car design. At the same time, it also helped to establish vehicle package layout as a two box design to the practical needs of surfers.

## 4.2 Case Studies: BMW

### 4.2.1 Background

The kidney grille has been a strong design cue of all BMW models since the early 1930's (Lightfoot. D.2004). However, today the grille is only one feature of a BMW model along with the innovative surfaces and detail features that make up the form and create the brands visual identity.

Since the 1930's, BMW have maintained consistent design features that make up the brand's Visual Identity. The long hood, short overhang, long wheelbase, and the famous Kidney grille (Lightfoot. D.2004). These visual forms were first created to differentiate the BMW models from other companies. From the 1960's to 1980's, BMW models had a very boxy style, the graphic details, and the nose angled forward, like a shark. Since the 1960's models, the "Hofmeister kink" (a bend in the C-pillar that separates the rear side windows from the rear glass) became a distinctive styling cue used across all of the BMW models (Wikipedia, n.d). BMW had its share of famous and influential designers, including Albrecht von Goertz and Giorgetto Giugiaro. Marcello Gandini, who led on from Bertone, was another one of the influential designers of BMW. Gandini brought a new design cue to BMW in the form of a bonnet structure line, which flows from the shoulder of the car, across the bonnet to meet the Kidney grille, and introduced the Quad headlight. The Quad headlight was used on many other 1960's car designsvehicle designs, which shows that it was a big trendtypical design approach of this era (Concept Carz, n.d).



Figure 018: Early BMW models.



Figure 019: Features of BMW models.



Figure 020: BMW Z4 explains about the "Flaming Surface".



B) Long hood



A) Kidney Grille & G) Quad Headlamp



C) Short overhangs, both front and back & D) Long wheelbase



E) Short rear deck & F) Hofmeister kink



Figure 021: The Iconic BMW's Visual Identity.

#### 4.2.2 Visual Identity

From 1992 to 2009, BMW's Chief designer Chris Bangle implemented a new trend in automotive styling known as the 'flame surface.' This new feature represents a part of BMW's visual identity today. From 1999 onwards, BMW models have a highly sculpted look, with a combination of concave and convex surfaces that build the proportions of the body. The headlights and taillights are very fluid and are embodied into these creative surfaces. However the new models still maintain the main features of BMW's trademark design: the Kidney grille, Quad lamp, and the Kink. Even the proportions of the cars are kept from earlier models of BMW (Green, G, n.d).

The iconic BMW's visual identity:

- A) Kidney Grille
- B) Long hood
- C) Short overhangs, both front and back
- D) Long wheelbase
- E) Short rear deck
- F) Hofmeister kink
- G) Quad Headlamp



Figure 022: BMW CS Concept.

Today as seen above, the new BMW visual product identity includes 'Flaming Surface' and the innovative and creative surfaces on the panels. As a premium brand and one of the stronger visual product identities amongst the automotive industry, BMW continues to introduce innovative forms as the trendsetter in the industry. The public's perception of BMW design is still one of a creative and individual brand, The visual product identity that defines BMW still remains strong and is still evident in the designs of BMW cars in the current market.

### 4.3 Case Study: Lexus

#### 4.3.1 Toyota - Creating a Premium Visual Identity, the Lexus

In attempts to compete with the premium brands, Toyota created the Lexus brand in order to emphasize the following criteria (Wikipedia, n.d).

- Status/Prestige/Image
- High Quality (or, more specifically the perception of high quality)
- High resale/Trade – in value
- High Performance (excellent high – speed comfort, handling and stability)
- Safety

The name 'LEXUS' is an acronym for Luxury Export to United States. Lexus directly competes with European luxury brands such as; Audi, BMW, Jaguar, Mercedes – Benz and Porsche, as well as the American brands Cadillac and Lincoln, and Japanese peers Acura and Infiniti. "Inside Benz and BMW the thinking was: 'We own this market'," said Richard Chitty, who oversaw the brand's service operations in the earliest days. The Lexus stole the march on its rivals immediately upon LS 400 release in 1989, impressing both American car-buyers and a cynical auto press (Liker, J, 2008).



Figure 023: 1989 Lexus LS 400

#### 4.3.2 L - Finesse

L-finesse is the design language that first appeared with the LF-series concept cars in 2003. The 'L' in L-finesse stands for Leading Edge. Featuring sculpted body panels, and the use of repeating motifs both on the inside and outside of the vehicle, this new design language countered criticism that Lexus styling was too conservative for the sophisticated luxury market. The 2006 production models were released along with the below L – Finesse brand ethos statement (Car design news, 2006)

According to Lexus, the L – Finesse embodies three essential qualities:

- Intriguing Elegance
- Incisive Simplicity
- Seamless Anticipation.

These factors derived from Japanese cultural motifs and the qualities of the drivers' sensory experience, both concrete and abstract, emphasise that the L – Finesse's focus was on creating cars for the luxury vehicle buyer (Car Pages 2006).



Figure 024: Lexus LF - Series Concept car.



Figure 025: Development of Toyota Motors.



Figure 026: Lexus IS.

#### 4.3.3 Visual identity

The Toyota Motor Company was established in 1933, with no design involved. The goal was to produce cars to sell in the mass market. Therefore the public perceptions of Toyota's image were of an affordable, practical vehicle, which made hard to break into the premium market (Liker, J, 2008).

Toyota incorporated new technology into the Lexus brand to attract a premium market, but they were still lacking in key areas of design. Toyota soon became aware that design was an important aspect of changing brand perception into the automotive industry. In 1983 Toyota decided to get into the premium market segment in competition with BMW, Mercedes – Benz, and Audi among others. The Lexus design was established and benchmarked from Mercedes–Benz and BMW. Lexus followed some of the forms and detailing of Toyota, but pushed for a completely separate image to Toyota (Liker, J, 2008).

Today, Toyota have created associate keywords, 'J – Factor'; from this Lexus have also created an associated key word of 'L – Finesse' (Toyota Design, n.d). L – Finesse is about leading in design and starting to create a visual identity for Lexus. The key is to create:

- Intriguing elegance
- Incisive simplicity
- Seamless anticipation.

#### 4.4 Case Study Summary

From these two case studies we can see the difference in the historical principles of both BMW and Toyota which not only highlights possible ways in which a visual identity can be developed but also its importance to each brand. BMW has had a core value of design-led products for over 70 years whereas Toyota had a function and engineering focus but has since identified the importance of visual identity and in response, developed Lexus as a cohesive visual brand. The fact that BMW has retained and developed a visual identity over such a long period of time and that Toyota saw a need to develop a brand with a distinct visual identity further reinforces the aforementioned importance of a visual identity to a global product. New technologies and the importance of engrained emotion in automobiles have helped drive this evolution and aesthetic-led development.

## 5.0 Design Methods: Creating the Unique Car

### 5.1 Identifying Needs of the Niche Market Targets: Piha Field Trip

Piha is the birthplace of the modern New Zealand surfing culture. Situated on the west coast of the North Island 40 kilometres from Auckland City, this beach is renowned for its rugged conditions and unforgiving tidal currents. The rugged cliff faces surrounding the beach are both majestic and inspiring, with a backdrop of the sub-tropical forest of the Waitakere Ranges. There are two main beaches, split by the formidable Lion Rock, Piha and North Piha.

The southern end of the main beach near Camel Rock provides the best surfing conditions with the best swells coming from the southwest with an easterly wind. Waves “peel” along the sandbar and good surfers can ride all the way to the centre of the beach. The conditions are not novice territory as waves are often over 3 metres high and can catch out even the most experienced surfers.

The purpose of this field trip was to experience first hand the conditions that experienced surfers enjoy and analyse the types of people visiting a surfing beach.



Figure 027: Observations of Surfers.

### 5.1.2 User Analysis

After talking to several surfers, a number of problems with their chosen vehicles became apparent, mostly with regard to space, storage and cleanliness. It must be noted that there is currently no vehicle on the market that is intended to cater directly to the surfing market. The following problems are a combination of the study of the station wagon as a mainstay of surfing transport and interviews with surfers and beachgoers at Piha Beach.

Board storage is important to all surfers, as their boards are often worth hundreds or even thousand of dollars. Options for putting a board inside a vehicle are limited by the interior capacity and after that the only option is to store boards on a roof rack. This is common but when talking to surfers at Piha beach it was found to be a less than ideal option as this sometimes causes damage to boards. They must be tightly tied down and are subject to strong winds relative to the speed the vehicle is travelling. Roof rack storage is also not safe from theft if the boards are to be left unattended during a trip. The other option is to store boards inside a car, this is only possible in a station wagon with at least one of the rear seats folded down and only short boards fit in these spaces. A five-seat station wagon can only comfortably carry two people and their boards, although some models can squeeze in three of each. Putting boards inside the car also causes problems with most upholstery as it absorbs moisture and collects dirt and sand. This can lead to pungent odours in the cabin and at the end of a surfing trip, the carpet and upholstery must be dried and arduously vacuumed.

Storage of wet towels, board shorts and wetsuits also cause a similar problem along with the fact these items in their own storage box take up a large amount of boot space. Entering a vehicle from the beach also inevitably brings a large amount of sand attached to feet and footwear that subsequently drops into the carpet and upholstery, making it difficult to clean. These problems should be considered when designing the interior and making fabric selections.

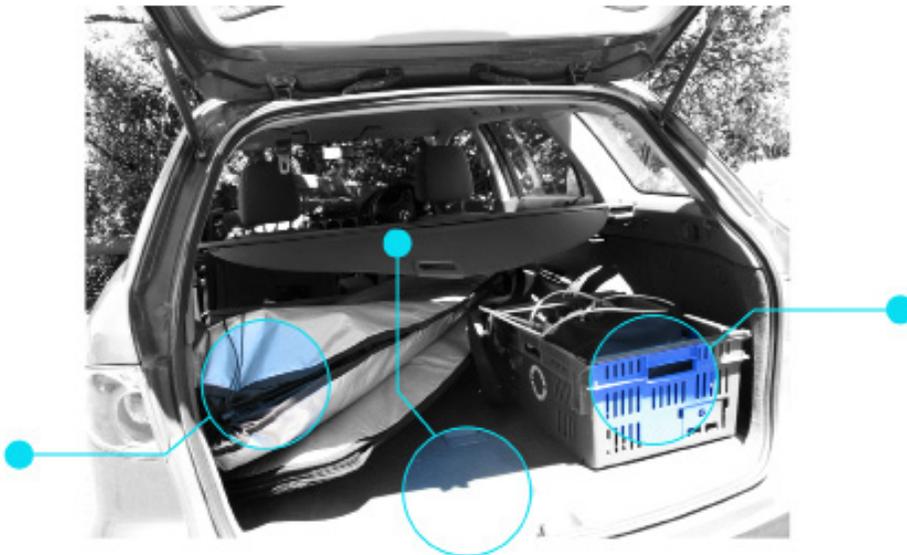


Figure 028: User's Vehicle analysis based on Mazda 3 Station Wagon).

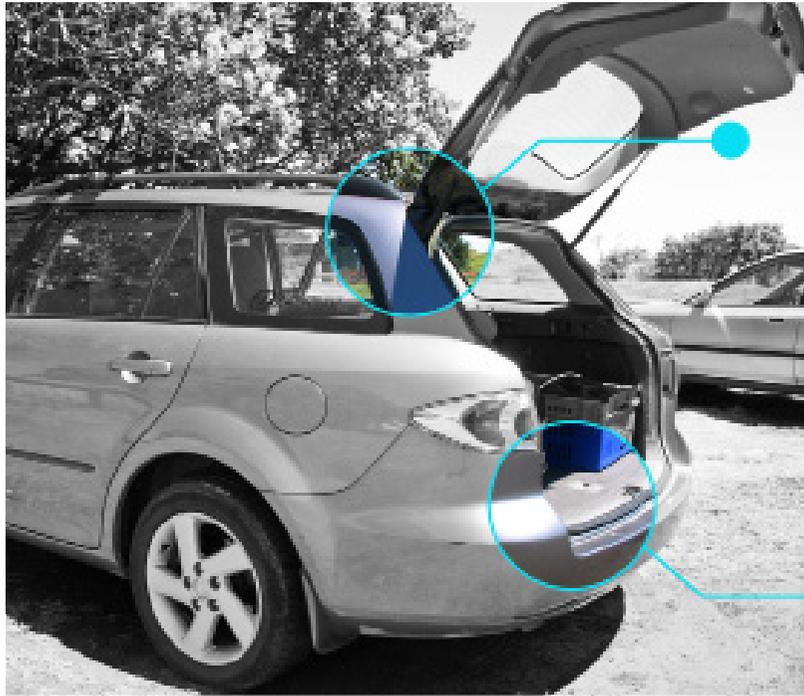


Figure 029: User's Vehicle analysis based on Mazda 3 Station Wagon.

Other problems include the driveline, boot, bonnet and bumper. The driveline of some station wagons is four-wheel or all-wheel drive, which is ideal for the conditions often encountered at a beach but a conventional layout means there is a large transmission tunnel housing the gearbox, centre differential, drive-shaft and rear differential which encroaches on the interior cabin space. The boot of most station wagons cannot open fully when boards are stored on the roof rack, therefore boards must be removed before opening the boot.

The final problems are to do with seating and private changing space around a surfing vehicle. Aside from cowering behind one door, a car offers very little privacy to remove wet gear and change into dry clothes. Some surfers also like to lean or sit on the rear bumper to remove wet layers; this becomes very hard when there is already a large box of wet gear and stack of boards filling the boot space. The final problem is the adaptation of the bonnet into a seat for sitting and waiting for the swell to come or relaxing at the end of a session. The painted surface can be easily scratched and most bonnets do not have appropriate reinforcement to handle the weight of a human being, occasionally resulting in dents.

## 5.2 Vehicle type considerations

There are several different types of vehicles that could be designed to suit surfers' needs. At this stage of the study it seems that a station wagon is the first choice of most surfers but this section will analyse other vehicles to better clarify what vehicle type has the potential to best suit a surfer.



Figure 030: 2008 Holden SS UTE.

### 5.2.1 UTE

The UTE (also referred to as a pick-up truck) has obvious potential for storing large amounts of wet and dirty gear with varying degrees of versatility within the storage area. Current designs allow for large amounts of gear to be stored in the open or under a canopy on the rear tray. This means that occupants are kept separate from wet, dirty gear and any possible odours. The rear tray area of a UTE is also weatherproof and resilient, meaning it is easily cleaned and not likely to rot like fabric.

Aside from these positive attributes there are some major downfalls within the design as far as a surfing application is concerned. Although the storage area is large and weatherproof, it is in excess of what surfers require. Two boards and a box full of wet gear do not even fill a quarter of the usable space at the rear. Although it can be used to fulfill the majority of the needs of surfers, there will always be a large amount of unnecessary, dead space. The seating arrangements of current UTE's are also a limiting factor for this type of vehicle. A single cab UTE only allows for two occupants while a double cab with four or five seats meaning a shorter load area behind, and often not enough length for even short boards. A UTE has some positive aspects that should be considered in the final concept but the potential is not great for the design or the versatility.





Figure 031: 2005 BMW X5.

### 5.2.2 SUV

The Sports Utility Vehicle or SUV has strong potential within its current packaging and surfers often use them. The sheer volume created by the package leaves ample room for most surfers' requirements, although when carrying more than two occupants, boards would have to go on the roof. Visibility is good and the high driving position is safe for the occupants but not for the drivers of other vehicles. The main downsides to an SUV are the height, weight and cost. Those that fit the needs of surfers are high, so roof rack access is difficult. The volume that creates excess interior space also creates a large amount of unnecessary weight, all of which adds to the significant cost.

### 5.2.3 MINIVAN

As far as practicality is concerned, there is not much that can beat a van. There is plenty of durable and versatile interior storage space that can take four occupants and their boards and double as a sleeping area for two. Unfortunately that is where the positives end for this type of vehicle as far as this study is concerned. With a high centre of gravity, handling is often poor and a high roof means use of roof racks where necessary is difficult at best. The main aim of this study is to create a visual identity for Hyundai, but the limited one-box proportion could prove troublesome in creating a compelling form.



Figure 032: 2001 VW Kombi Concept.

#### 5.2.4 STATION WAGON



Figure 033: 2005 AUDI A4 Advant.

Currently, the station wagon caters best to a surfer's needs. They are relatively cheap, light and have a reasonable amount of space. The lack of large body panels and windows makes them lighter than the aforementioned competition with the compromise being space and how it can be utilised. In some circumstances it is a comfortable vehicle for surfing but with more than two people or with the inclusion of extra gear for an overnight trip, space can become limited. Some vehicles incorporate all wheel drive systems but they are bulky and encroach on the interior space with current mechanical drivelines. Roof access is easy because of the lower profile of station wagons, although it is not well designed for surfers, as longer boards must be removed before the boot, hinged at the top edge, can be opened for rear access.

#### 5.3 Target Vehicle Type

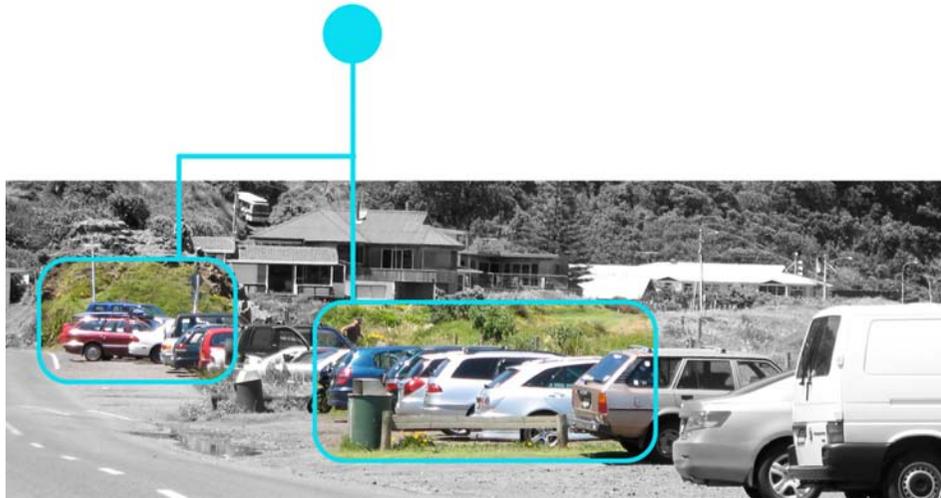


Figure 034: Environment of Piha Beach Car park.

As a result of examining the advantages and disadvantages of the above vehicles, the final vehicle design will need to include and consider many aspects from all vehicle categories mentioned above although the departure point will be from a station wagon type body with the possibility of veering into the size range of a small SUV. The station wagon offers greater potential for improvement of image and aesthetic and a better canvas for the study of Hyundai's future visual identity. Additionally, the overall cost associated with purchasing and running a station wagon is significantly lower than other possible vehicle types, in keeping with the current affordability of the brand. This will also be more appropriate to the age range of the target market, which will be predominantly between 20 and 40 years old.

## 6.0 Comprehension

### 6.1 Form

#### 6.1.1 Dune Buggy

The original idea of this car model came from the design of the Dune Buggy as it was possibly the first car designed for modern beach culture, though it does not fulfill the needs of surfers particularly well. The exposing of the tyres and accentuation of the arch form was particularly influenced by the Dune Buggy design. From there the form developed from a “one-box” vehicle to a “two-box” shape that is more in keeping with the traditional station wagon layout. This assisted the move closer to the territory of the hybrid SUV/station wagon convention that allow a more possible proportional form on which to expand.

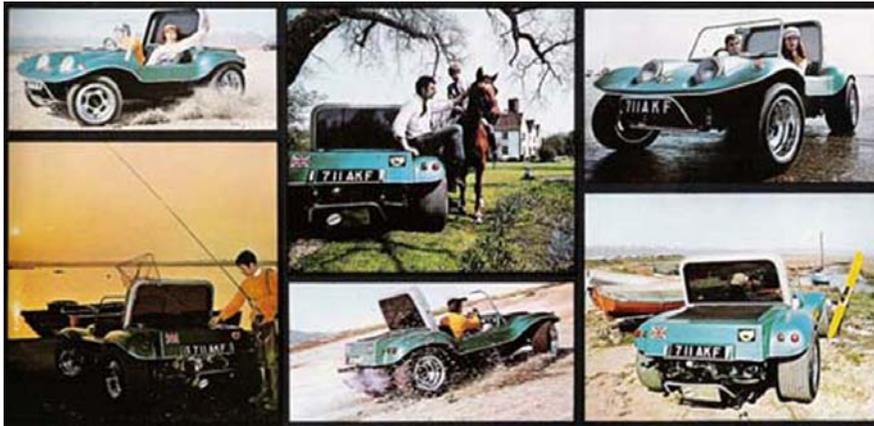


Figure 035: Hyundai Exodus Concept inspired by Dune Buggy.



Figure 036: Hyundai Exodus Concept inspired by Dune Buggy.

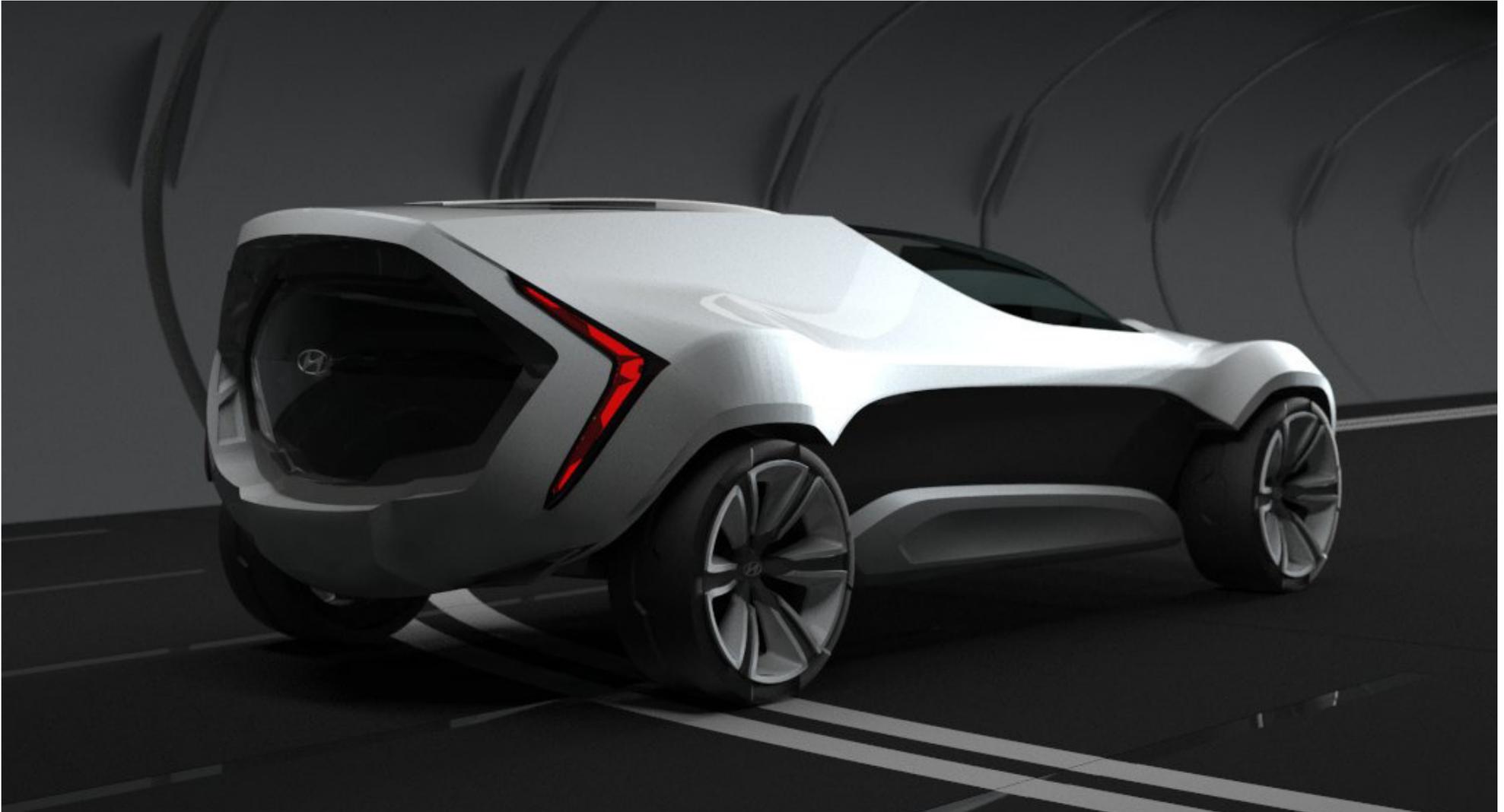


Figure 037: Hyundai Exodus Concept inspired by Dune Buggy.

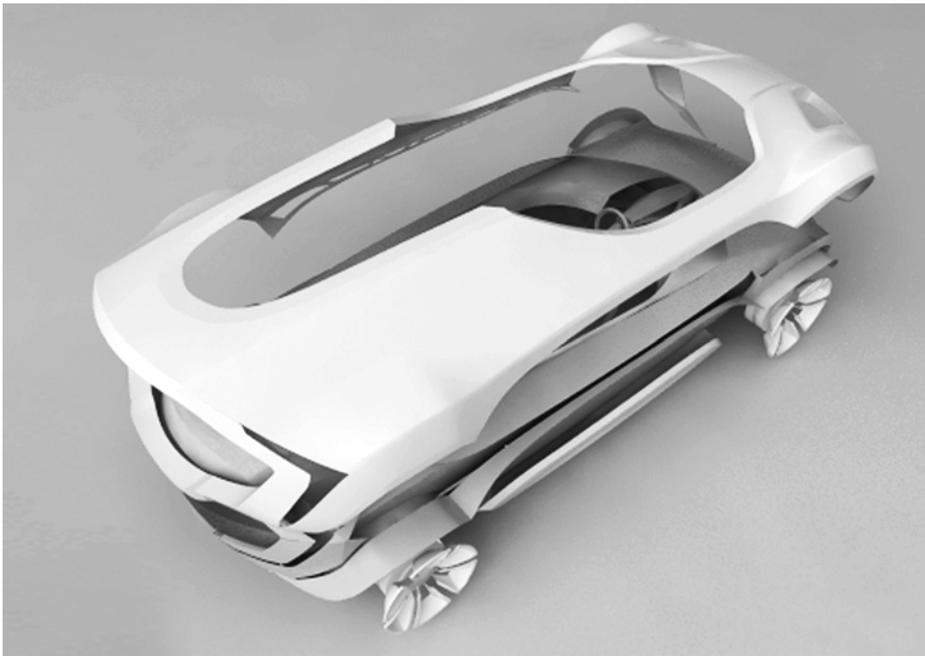


Figure 038: Hyundai Exodus Concept emphasis Wet suit.

### 6.1.2 Body and wetsuit

The design of this car model started off with the emphasis on wave features to help suggest the waves while driving the car. However, the form developed on to more of the line of the body suit of a surfer to make the surfer feel as one with the vehicle as you would do so when wearing a body suit. It not only suggests security but also expresses the freedom (dynamic) and maneuverability with its exterior form of the car when driving.

In terms of the colour coordination of the car, the design makes a statement in carrying out the curves of a body suit. The design comprehends a visualisation of a surfer in a black bodysuit held in the freedom of the waves in the midst of the white foamy bubbles of the waves in the sea. It is aiming at letting you enjoy the surfing moments in every moment of the surfers lives, especially within the closed city life.

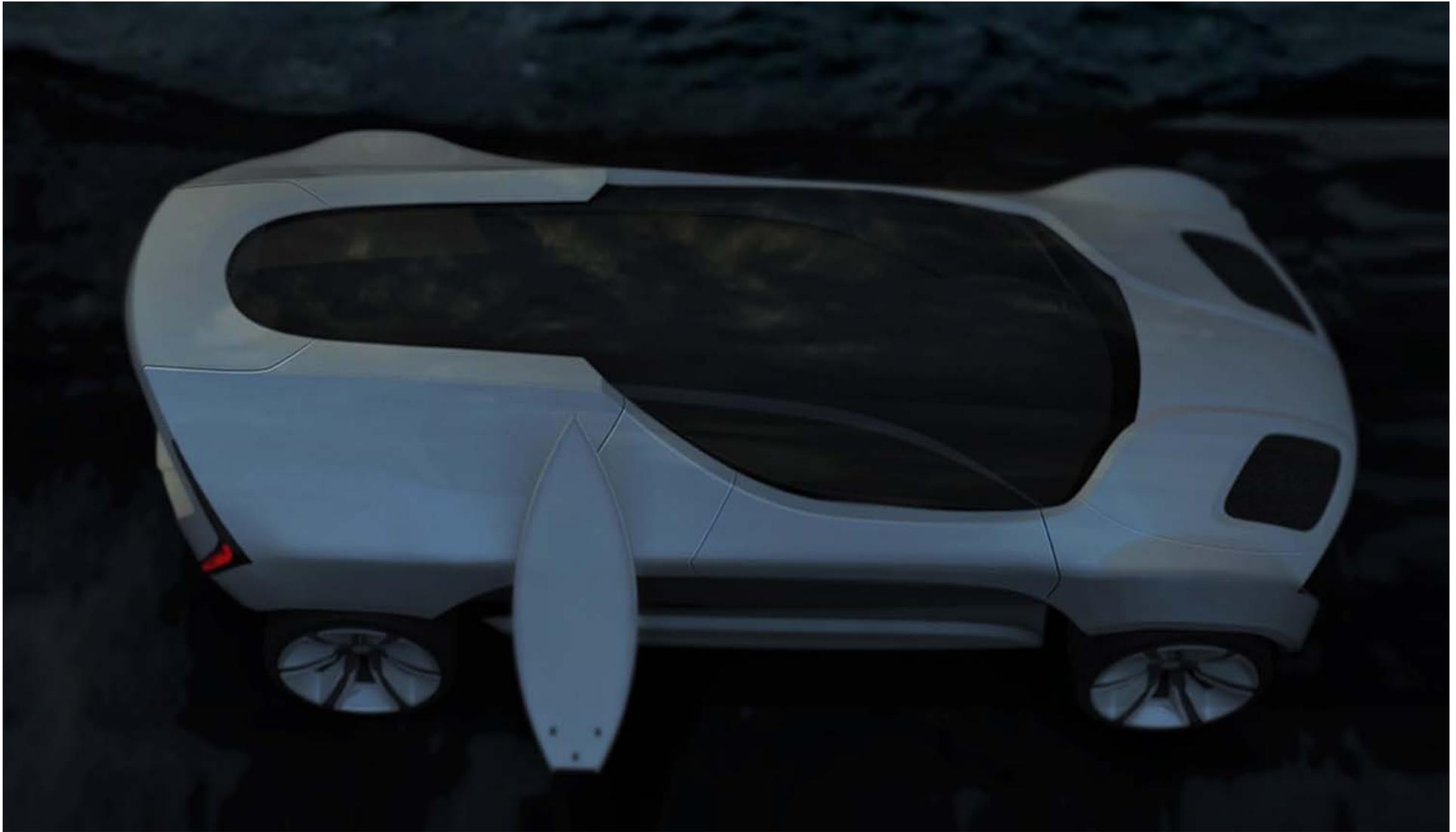


Figure 039: Hyundai Exodus Concept emphasis Wet suit.

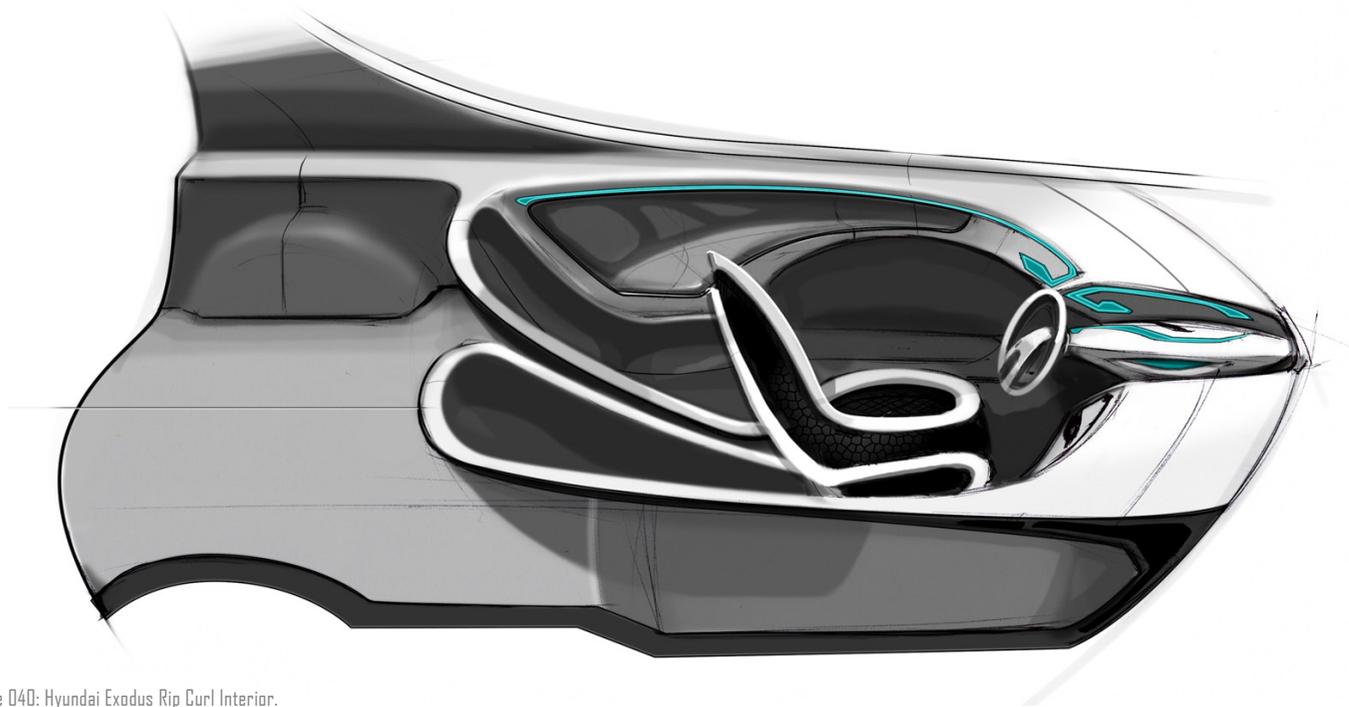


Figure 040: Hyundai Exodus Rip Curl Interior.

### 6.1.3 Rip curl interior

The organic wave like features, although not as pronounced as the vehicle's exterior has been brought into the interior to give the sense of riding on waves within the car while driving. The 1-2-1 seating gives a bit of dynamics to allow freedom to all the riders in the car as individuals would do so while enjoying the waves out in the sea. The feel of being together as well as being alone could be enjoyed at the same time within the same space of the car.

## 6.2 Function

### 6.2.1 Bonnet seating unit (figure 41 - 42)

There are many features that have been incorporated into this design to maximize its capabilities for the surfing fraternity, both interior and exterior. These were considered early in the design process in order to fully integrate them into the final design and are in response to the problems already identified in earlier research.

The exterior exhibits a number of both subtle and obvious functions. One of the main areas for development identified in analysis of surfers' vehicles was the tendency for surfers to congregate around their vehicles and use various parts to lean and sit on. This was not an intended use for most vehicles on the market and was targeted as an area for ergonomic consideration to enhance the social capabilities for the exterior of the car. The bonnet seat is intended to provide a comfortable seat on an appropriately structured part of the vehicle, with the base of the seat being constructed of flexible plastic mesh to double as an air intake for cabin. The rear bumper has been designed with enough room for it to be sat on with the rear glass closed or open. This was identified as a common area to sit on, although most vehicles only have a bumper large enough to be leaned on. The depth of this bumper will be more than adequate for an intentional seating position.

The flowing front guard surfaces also form a complimentary foot rest for the bonnet seat, giving further versatility to the social area created around the front end. The opening between the guard and main body allows for ventilation of the motors and braking system.



Figure D41: Hyundai Exodus Bonnet Seat Unit.



Figure D42: Hyundai Exodus Bonnet Seat feature.



Figure D43: Hyundai Exodus Interior Layout.



Figure D44: Hyundai Exodus Interior Sleeping Unit.

## 6.2.2 1+2+1 interior seat unit

The seating is a 1-2-1 design, with the rear single seat being a “dicky” style seat to be folded out of the sleeping area when necessary. Through earlier research, it was established that most surfers travel in numbers of between one and three, rarely more. To counter the possibility of the driver at the front being in an anti-social position - ahead of the other two passengers, the seats are offset from one another rather than being in two distinct rows.

An extra notable feature of the seats will be that the openly designed curve seating will help dissolve any unwanted humidity and left over sand to fall through. This will be the differentiating feature when compared to other conventional car designs, even for the ones preferred by surfers. Hence they will not leave any soggy seats or sandy mess on the seating after exciting surf which was a concern for most surfers.

## 6.2.3 Sleeping area

Through earlier research of surfers and their habits, it was found to be common that a single person would often arrive at a surfing location at dusk and decide to stay to continue surfing early the next morning. This was primarily because the surf conditions were better at these times. To better facilitate this, there is appropriate space in the rear of the vehicle to sleep if the need arises.



Figure D45: Hyundai Exodus Storage Unit.



Figure D46: Hyundai Exodus Change Area.

#### 6.2.4 Change area (rear hatch door open).

At the rear of the car, the glass opens in three pieces. The top half folds upward in a manner similar to a conventional station wagon whilst the bottom half splits vertically in the middle to swing outward to either side. This aspect of the design greatly increases the functionality for surfers by providing shade and protection from the elements while the top is folded up and privacy with the bottom half open for an appropriate area to change out of wet swimwear and wetsuits.

The lower side panel is capable of folding flat to provide a step that can be used for easy access to the interior and would also serve as a footrest for people to sit side-on in the seats whilst cleaning sand off their feet when required.

#### 6.2.5 Separate wetsuit storage unit, to avoid get wet interior

Wet storage was another major issue raised in earlier research. This has been addressed in the design of the rear bumper which incorporates a draining drawer. Rather than storing wet and pungent smelling gear inside the cabin area, the bumper provides a space large enough to store a wetsuit and swimwear, allowing the interior to remain cleaner and dryer. The drawer drains out through the exhaust pipes and provides extended seating when open in the privacy of the rear doors.



Figure D47: Hyundai Exodus Change Area.

#### 6.2.6 Surfboard rack



Figure 048: Hyundai Exodus Door open.

The opening of the front and rear doors were carefully considered for ease of use and maximum access. Scissor and/or gull-wing doors would add to the conceptual aesthetic but ultimately would serve to detract from the function of one of the most important aspects of any surfers vehicle; the roof-rack. Therefore the two front doors would function in the conventional manner whilst the rear doors would slide rearward and pivot slightly outward around the rear guard. This would allow for maximum opening for boarding and alighting the car whilst maintaining maximum access to the roof rack for surfboards.



The roof rack provides ample space for the occupants' surfboards or other large objects needing to be moved whether inside or on the roof of the car. The sleeping area inside the vehicle also provides enough room for most surfboards except the very large if desired.

Figure 049: Hyundai Exodus Surfboard Rack.

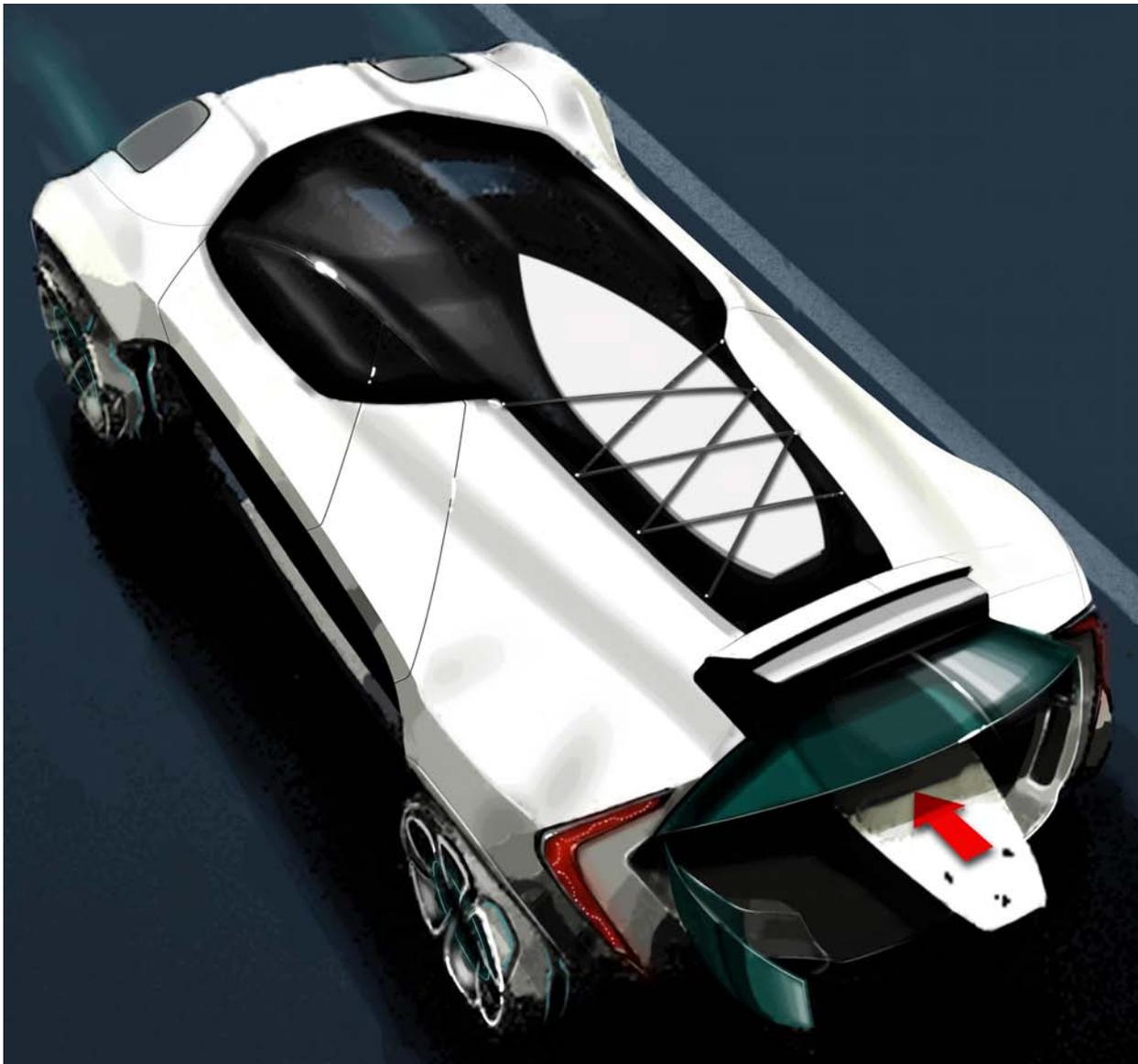


Figure 050: Hyundai Exodus Surfboard Rack.

If there are the occasional surfers preferring the extra large boards, attaching items to the roof is made easy with retracting and self tensioning straps built into the rack pillar structure. Releasing the sprung straps allows them to be easily attached over the rack and once in place, tension can be reapplied with a mechanism similar to a seatbelt tensioner. This functionality allows a wider option of the carriage of surfboards inside or outside of the car.

## 7.0 Association

### 7.1 Targeting a Niche Market

It was decided that a specific niche market would best service the requirement to develop a specific visual identity, because it would contain particular reference for icons, indexes and symbols which are crucial for the development of recognition, comprehension and association. Surfing as seen above, does not just finish at being a sport but has a whole culture built around it. It may be due to the fact that surfers associate themselves with nature through this sport, the waves in the sea and the natural elements that shape the surfing experience. They associate it to the tension and adrenalin that its offers them as a lifestyle. Wahei Hirai, the head designer of Toyota stated that their company philosophy is to listen to the customer, give them what they want, and to provide high quality at a reasonable price for the satisfaction of their customers (Car Design news, 2006). If Hyundai could develop this model with surfers they too could associate more closely with the needs of their customers, and provided that the price is also reasonable, it could help in the association of this approach of tailoring to specific customer needs and help to reinforce these aspects within their brand image.

### 7.2 Difficulties of Surfers Cars

When the opportunity to discuss the difficulties of the vehicles they use, the surfers interviewed may have found it to be a chance to voice their opinions in discussing their true needs in terms of a car design for themselves whether the need arises daily or occasionally. At the same time, it allowed numerous options to be brought to the researcher's attention and to be developed in this research process. If it had not been for the opportunities to speak with such a variety of surfers, it may have been difficult to create an end result so closely associated with the voiced and latent needs of the varied surfing demographic beyond a very basic level of association with them through clichéd cultural references and associated products.



Figure 051: Hyundai Exodus Associated to star surfers.

## 8.0 Recognition

### 8.1 Start of a new Branding Image and Visual Impacts

At first look, surfers will recognise the resemblance of the Exodus to the Dune Buggy, from which it was first inspired and its similarity in targeting the same market. Also, as the Dune Buggy was first known as being a car for surfers, the Exodus could naturally be continuing this line of identification and recognition as the next generation car for surfers.

According to Hyundai's head designer Mi Nam Kim, "the consumers are looking for innovative designs and something different" (M.N, Kim personal communication, July 16, 2007). If the Hyundai brand is attached to the visual image of the Exodus, people will have new grounds for recognising the Hyundai Motor brand and feel more close to it for having a specific car type designed for them.

### 8.2 New Beginning

In combining "comprehension" and "association" as stated by Warell (2005), the first generation of true recognition could be brought about with the Exodus in symbolising further designs for surfers, or similar markets, to come. It can lead the way in providing grounds for a unique series of cars while providing features that the target market could continue to recognise. The Exodus, meaning escape, could also be recognised as providing a new dimension vehicle for surfers which support their need for freedom, as well as tension and an adrenalin rush as part of an escape from their every day lives. And though this is an experimental model, it can create a basis for future research in to car designs for other lucrative and specific niche markets.

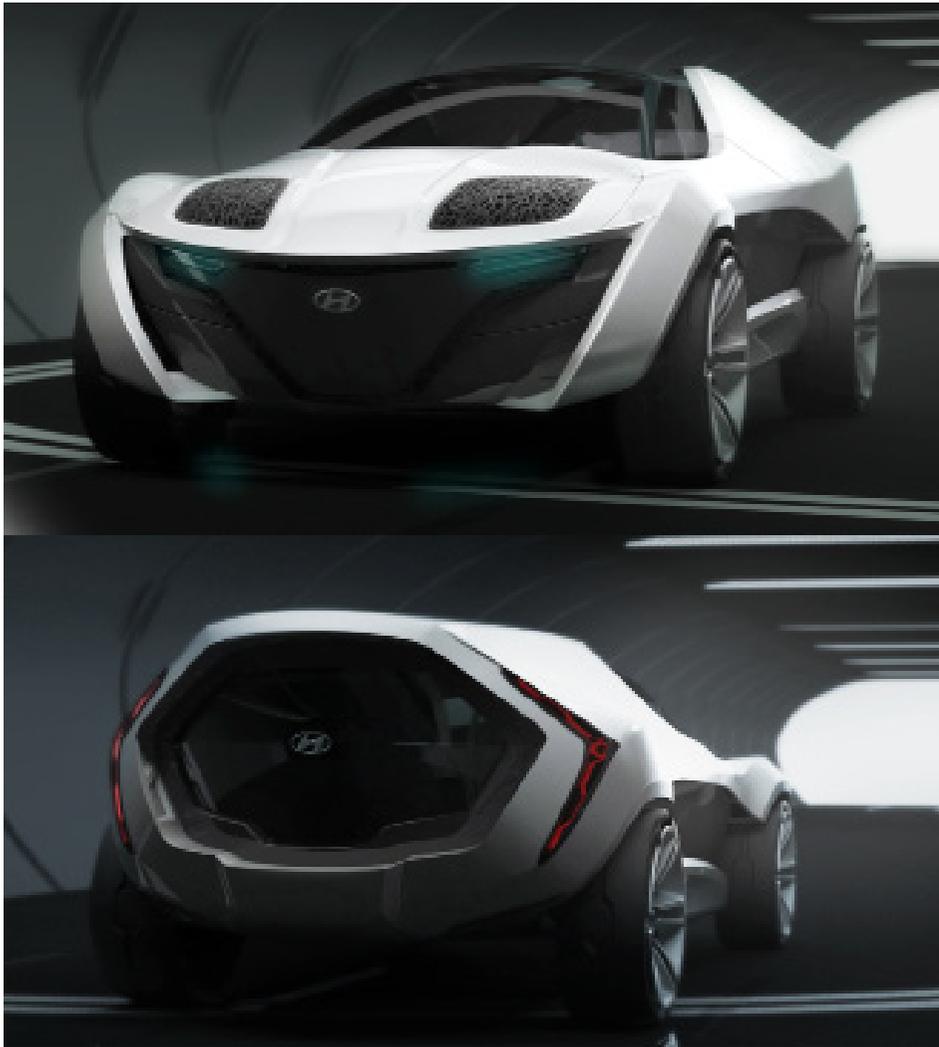


Figure 052: Hyundai Exodus Concept.

## 9.0 The Real Model: Exodus

### 9.1 Design One

This phase of design was primarily sketch oriented with foam being used for form modeling of the final concept. The aim was to freely experiment with form language capable of reflecting the character of surfers and their surroundings. Strong influences for the mood and language of these sketches were wave formation and water flow. Strict reference and direction were kept to a minimum in order to generate a wide range of initial sketches.

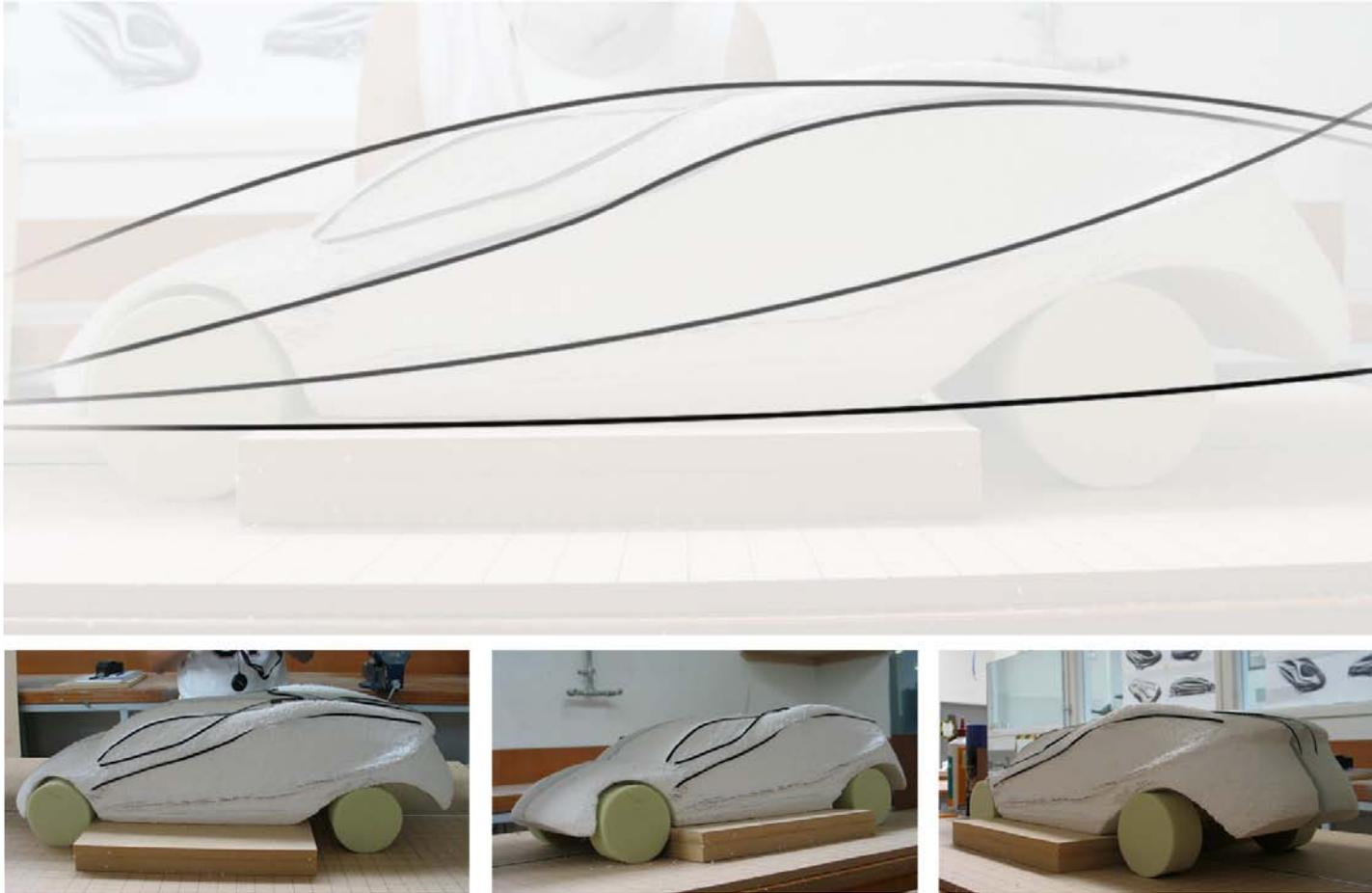


Figure D53: Hyundai Exodus Design one foam model testing.

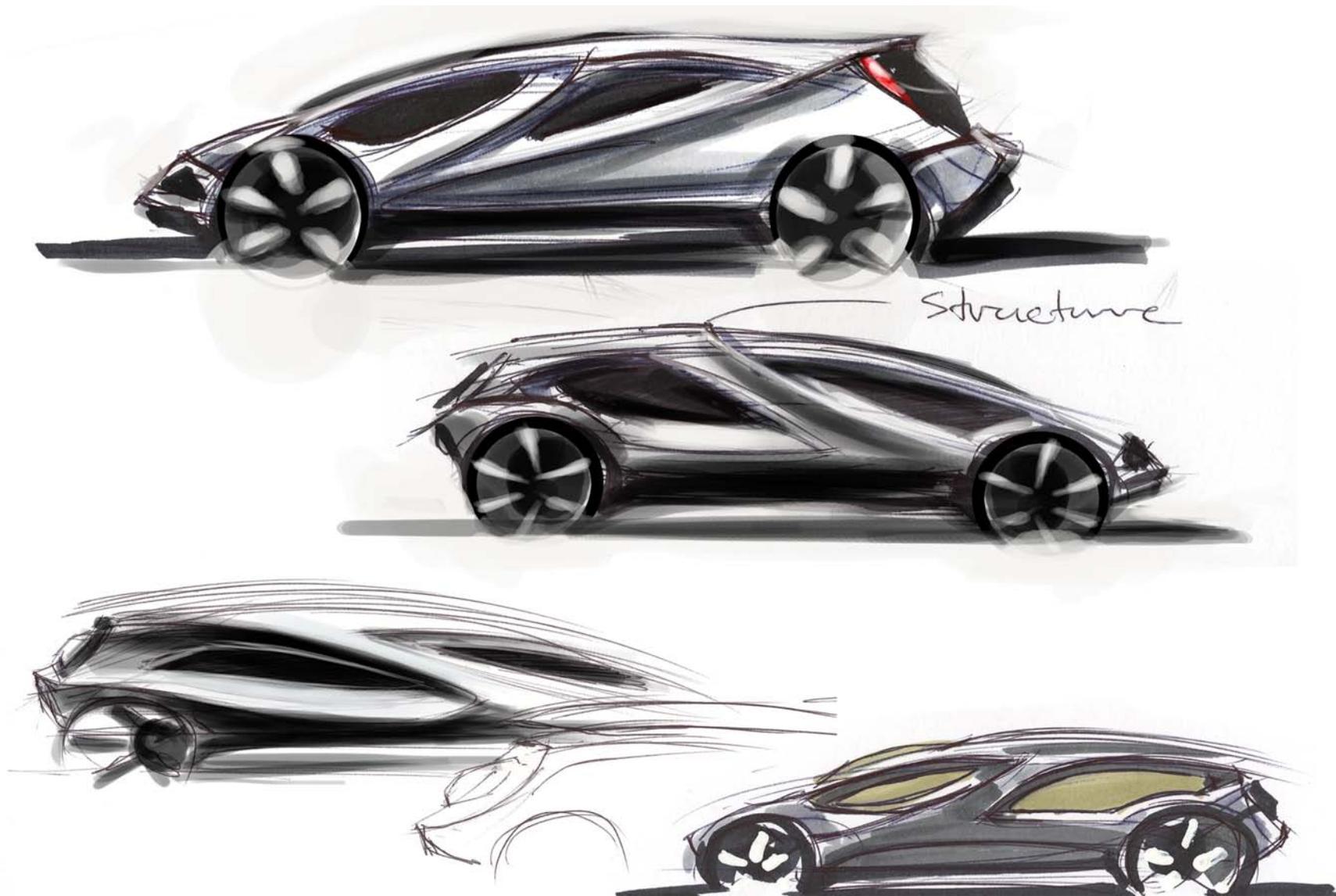


Figure D54: Hyundai Exodus Design one ideation sketches.

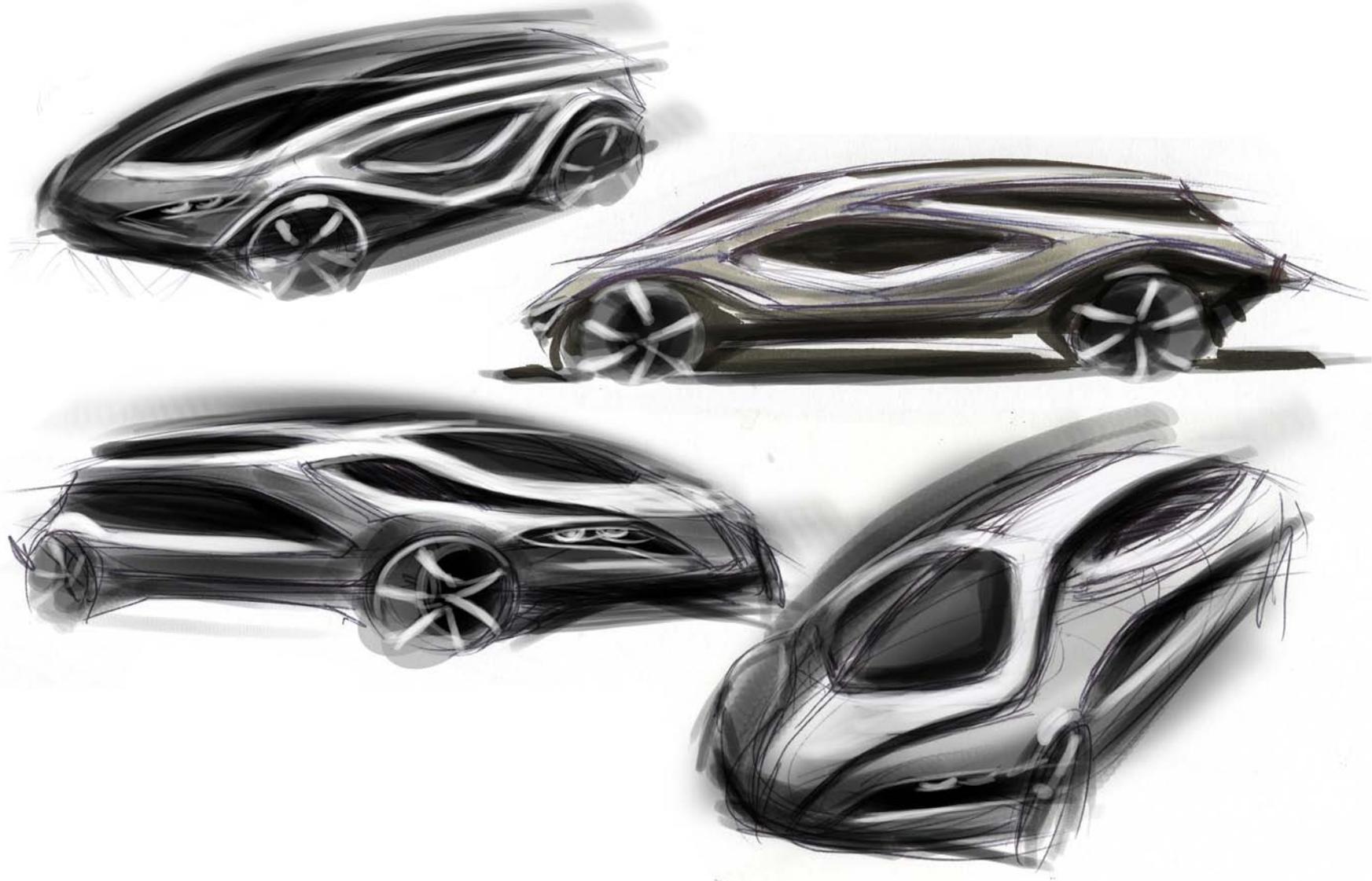


Figure 055: Hyundai Exodus Design one ideation sketches.

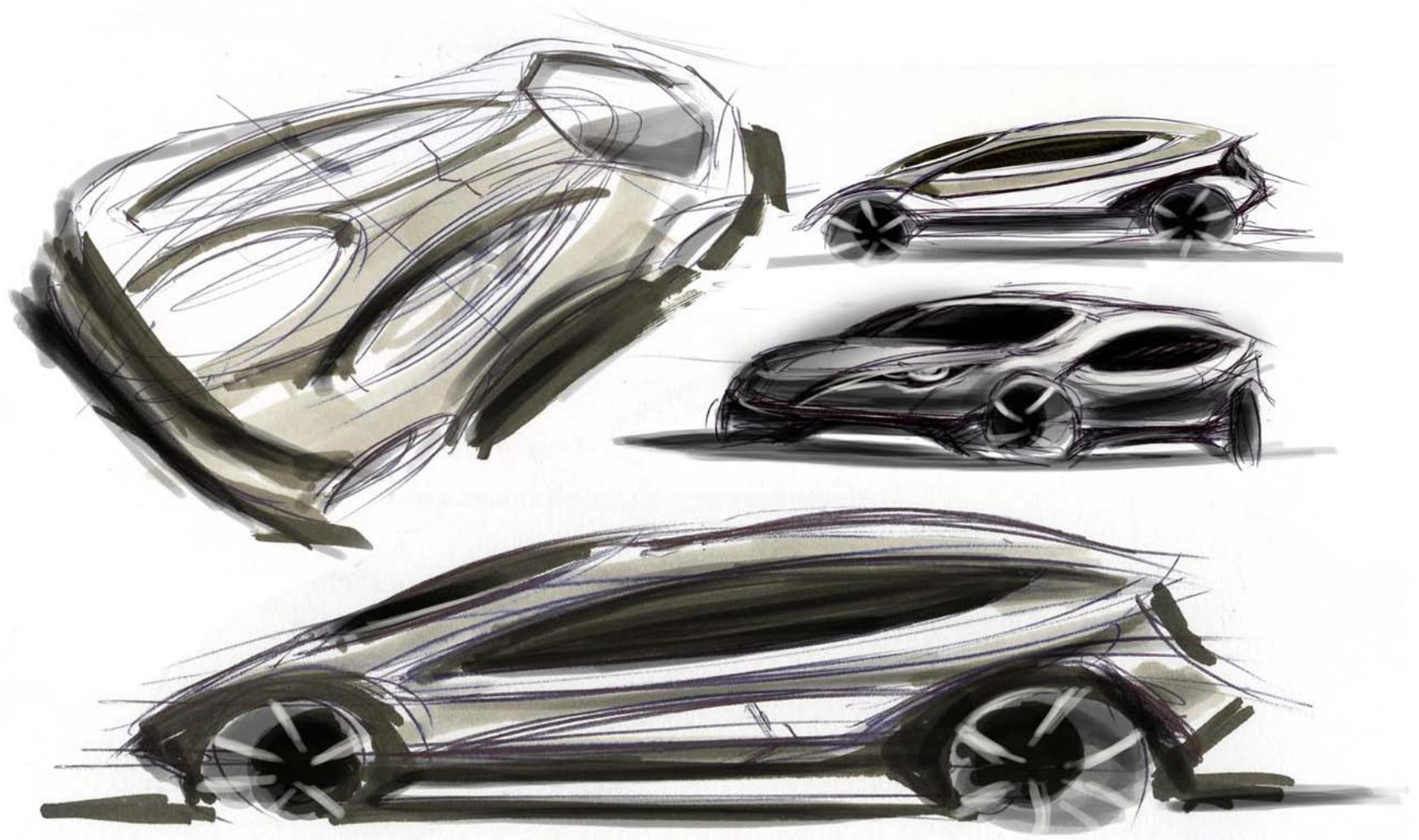


Figure 056: Hyundai Exodus Design one ideation sketches.



Figure 057: Hyundai Exodus Design one ideation sketches.

### 9.1.1 Analysis (Figure 053 - 057 )

Several key shortcomings within the final concept of this stage were identified but it also became apparent that some of the fundamentals were present.

The free-flowing forms of waves are strong in this initial stage, although their influence seems to suffocate any chance of an expression of the charm of surfing. Asymmetric form was explored but sometimes did not accurately portray the natural yet tense interaction of waves and water flow. The main problem with this design as far as surfing is concerned, is the distinct lack of a sense of freedom. Whilst it is a shape full of organic and evocative curvature, there is an abstracted yet overpowering domination of the “wave” feel to this study as opposed to the concept of ‘surfing’ as a whole.

As has already been mentioned, this phase had a very organic feel to it. This is not necessarily a bad thing considering a surfer’s environment, but keeping in mind the words the researcher chose to associate the design with, this feeling is somewhat off the mark. This design does not holistically convey a sense of extreme, dynamic, or free. It is unconventional in form, which borders on rebellious but the feeling of rugged roughness is somehow lost in the flowing lines and rounded edges.

The most positive aspect of this phase is that we can begin to see the emergence of originality in certain aspects that could be applied to later designs. Initial consideration has been made for occupants, surfboard storage and overall layout. These will develop further with more refinement but it will be important to keep in mind the intended function of the vehicle without letting it interfere with possible visual characteristics, as these will be key to the overall success. Form is paramount for the creation of a visual language but a lack of function will defeat any possibility of user satisfaction.

Overall, this phase lacked the appropriate character required by the brief. New ideas need to be generated and most importantly, a new proportion must be found which not only compliments the visual language but also reinforces the uniqueness of the target market. The nature of a surfer’s environment needs to be more widely exploited and the characteristics of surfers as a stereotype need to be further explored visually. The functions already considered should also be further explored and included.

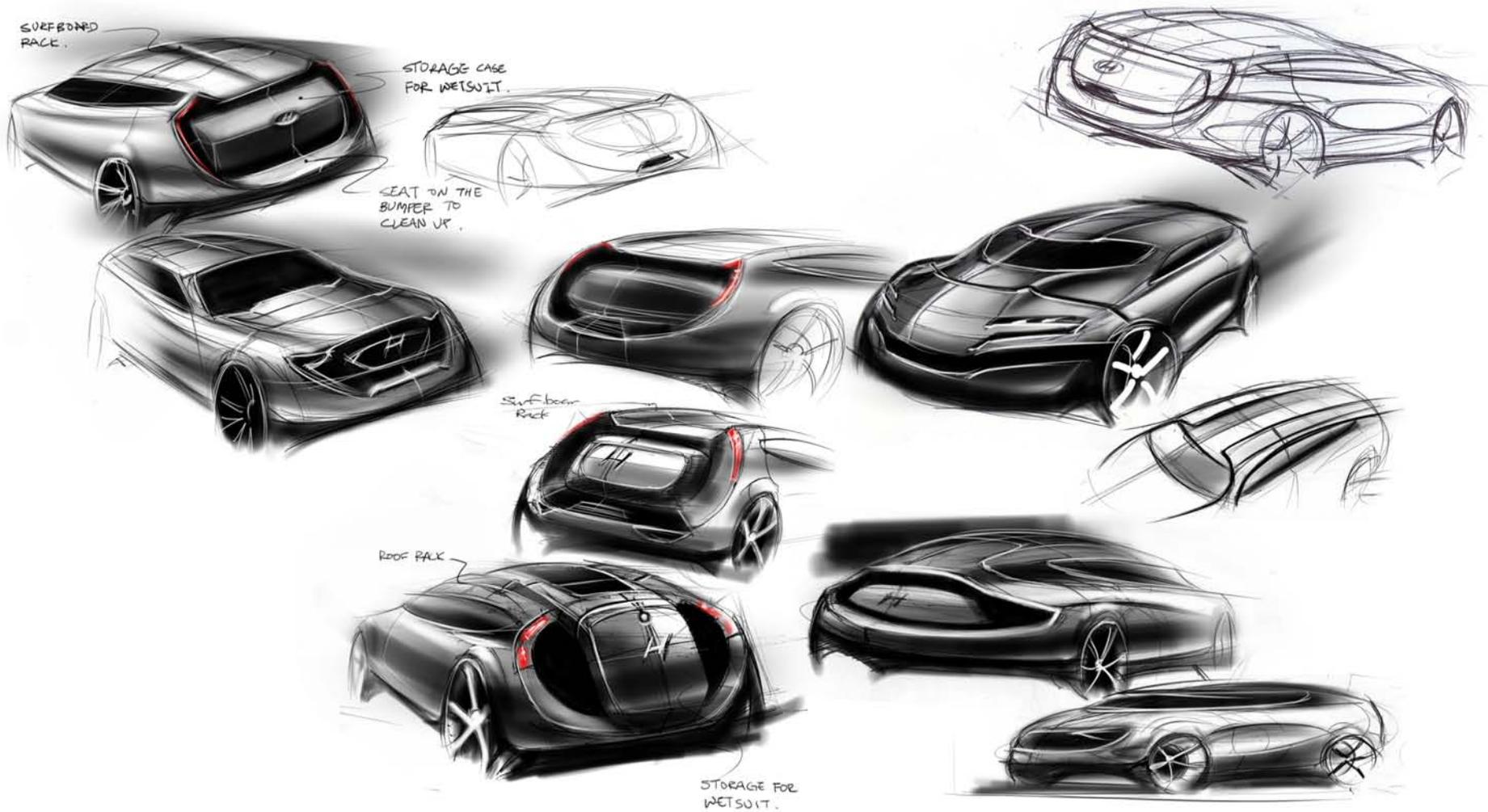


Figure 058: Hyundai Exodus Design two ideation sketches.

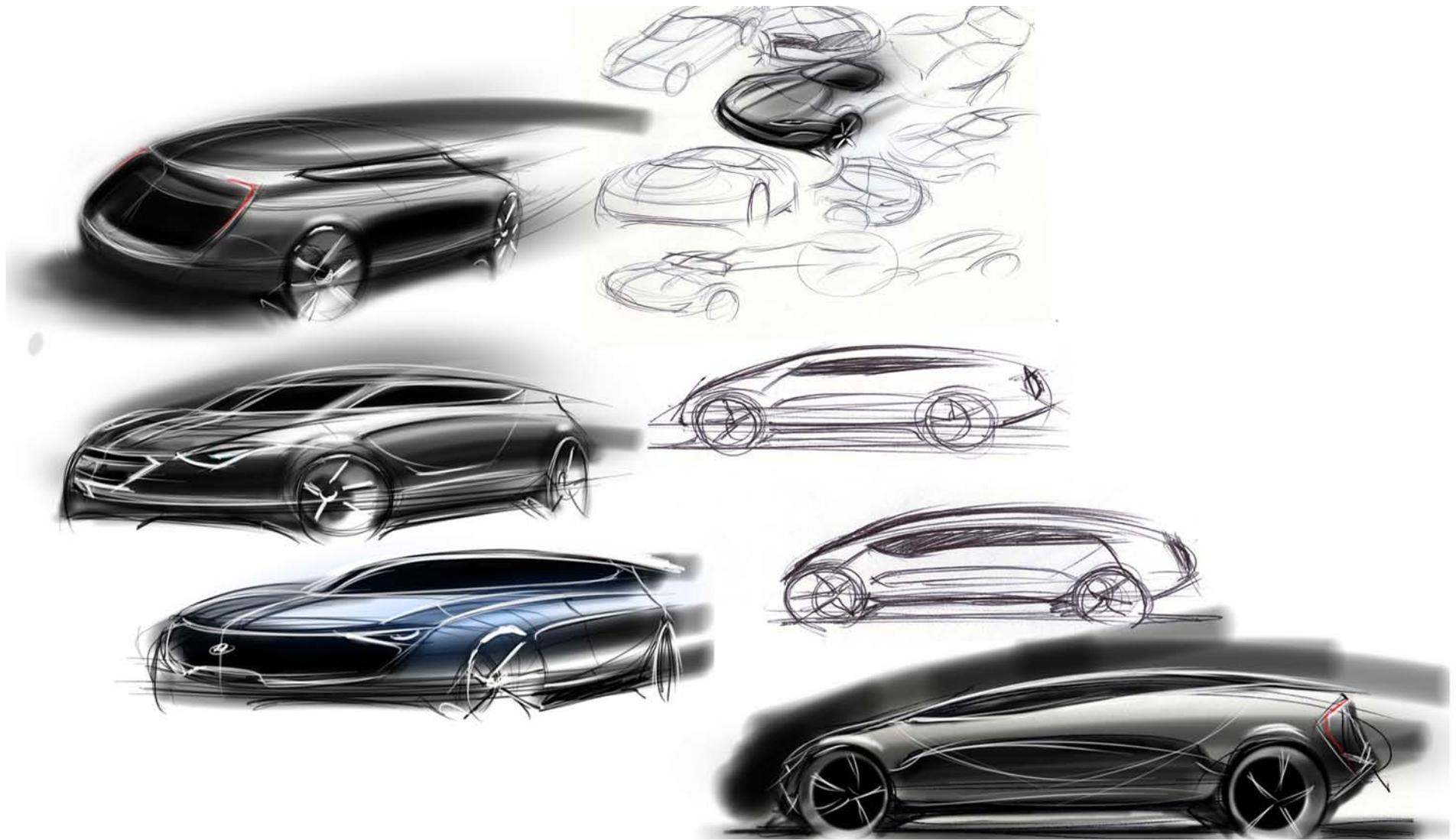


Figure 059: Hyundai Exodus Design two ideation sketches.

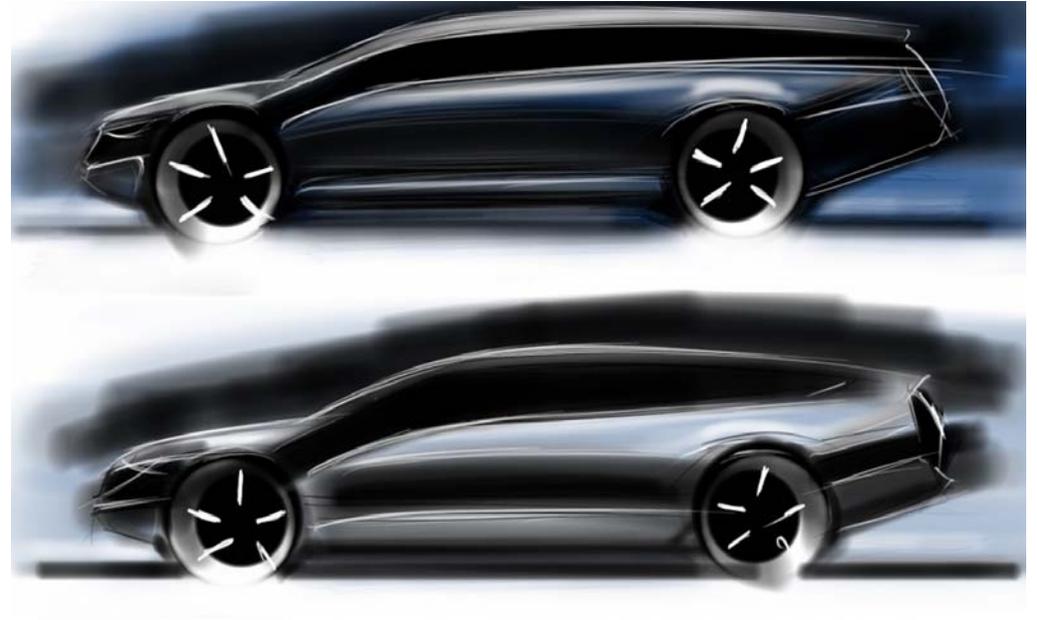
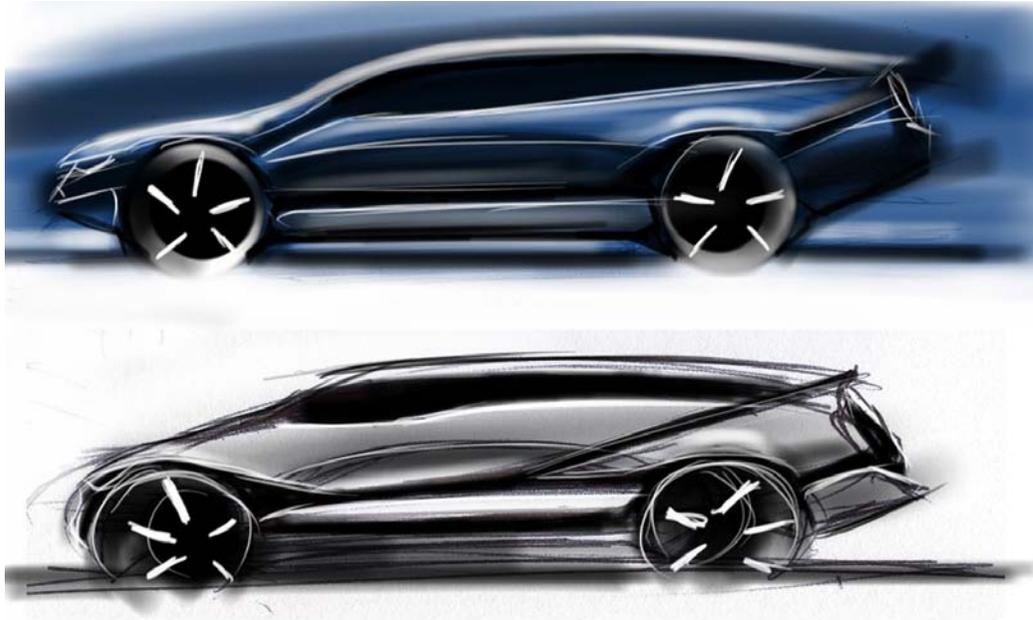


Figure 060: Hyundai Exodus Design two ideation sketches.



Figure 061: Hyundai Exodius Design two ideation sketches.

## 9.2 Design Two (Figure 058 - 061)

This phase of design involved further sketching in an attempt to return to a proportion that more clearly resembled that of a conventional station wagon. It was also aimed at achieving a visual package, which more strongly expressed the feelings of surfers.

In depth solutions to problems with current surfing vehicles were also explored and helped to generate new styles of concepts that better reflected the intended use of the vehicle. Again, foam modeling was used as proof of concept to better attain a feel for the implications of the two-dimensional work. The final sketch model became a base for experimentation with three-dimensional line work and overall surface treatment in an attempt to achieve visual coherence between proportion, lines and surface treatment.

This phase proved to be useful as an exploration of solutions to existing problems that surfers encounter with vehicles. The use of conventional proportion as a base gave the final design of this phase a more coherent look and was combined with more aggressive line work and surface treatment. This also tied well with the current direction of Hyundai's concepts but is not essential to the success of this design.

One of the main developments from phase one to the end of phase two was the transition from a "one-box" vehicle to a "two-box" shape that is more in keeping with the traditional station wagon layout. As far as the main criteria are concerned, this is a better representation of the proposed target market as it harks back to the tradition of station wagons for this group. It served to move the vehicle style away from the look of a minivan and closer to the territory of an SUV with some station wagon conventions. All three body styles have an essence of functionality but the latter two are less utilitarian and more expressive, which is consistent with the stereotypical 'surfer' characterisation, a theme that will be essential to maintain and carry through the remainder of this design research.

The nature of the identified target market requires strong functionality. Key problems have already been outlined in the analysis of current and future vehicles. Therefore the decision that any solutions needed to be explored at an early on meant that they could be incorporated throughout the remainder of the process. In doing this early on, more freedom and creativity was possible in solving these problems. A wider range of solutions has been made available than otherwise would have been possible, meaning that later in the design process, features appropriate to the final solution can be included where they are deemed fit, rather than designing features that are narrow minded to fit within the package of a final design. It was also intended that these functional features be considered later as important visual features of the final aesthetic.

Parallel to the design of functional features was the attempt to achieve a visual coherence between the functions, and the overall visual impact of this phase of the design. In doing so, a stronger theme of aggression and sharpness was introduced, which also included an influence from current Hyundai concepts, which will be discussed in the following paragraphs. Some promise was shown in the line work experimentation with the foam model and some angles gave an appropriate tension to these lines, however, as yet, the complete package has not exhibited a satisfactory coherence from all angles. This area requires further development but shows potential. However, the influence of the idea of aggression is not yet portrayed clearly enough the extent of which will need to be decided.

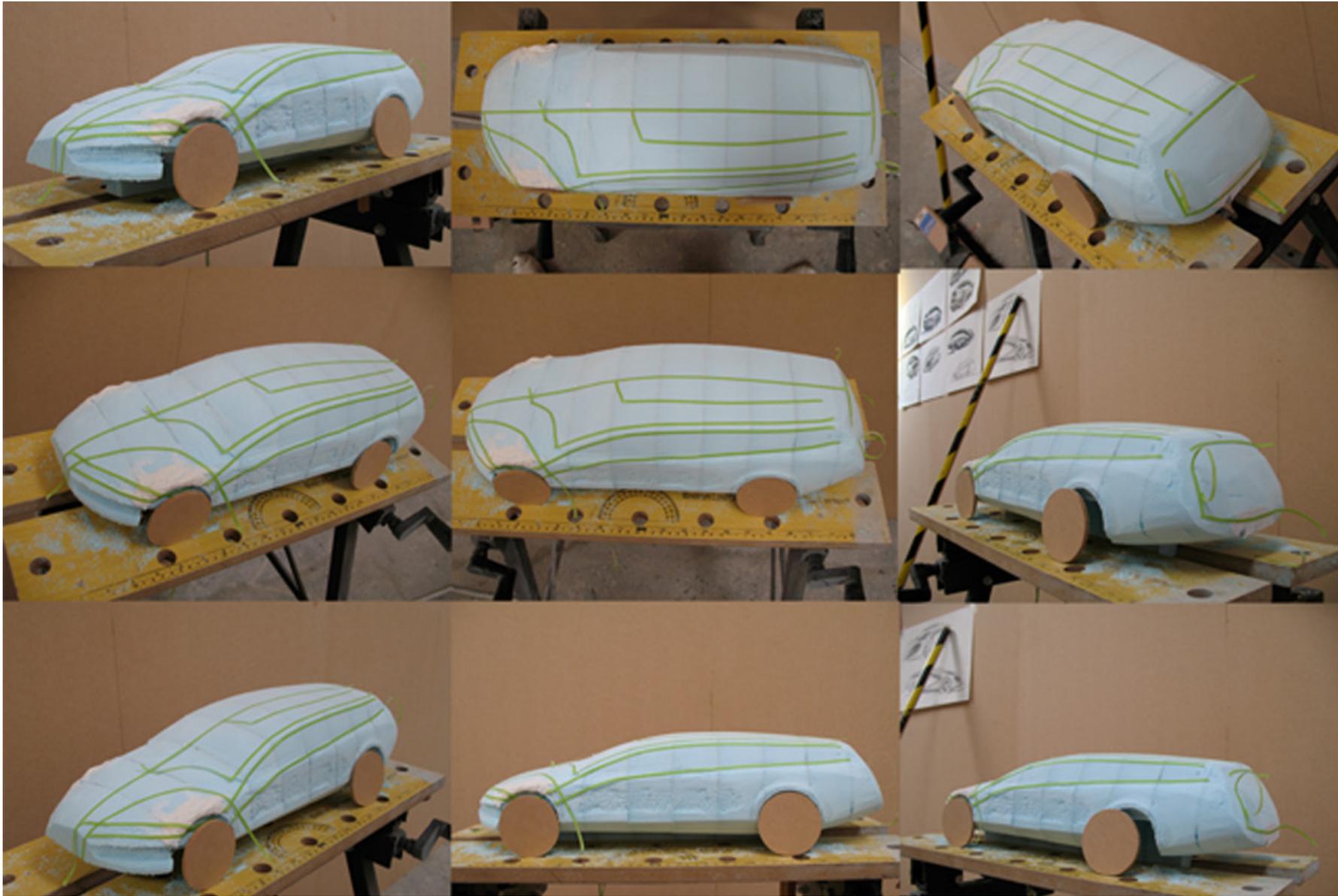


Figure 062: Hyundai Exodus Design two Testing model Process.

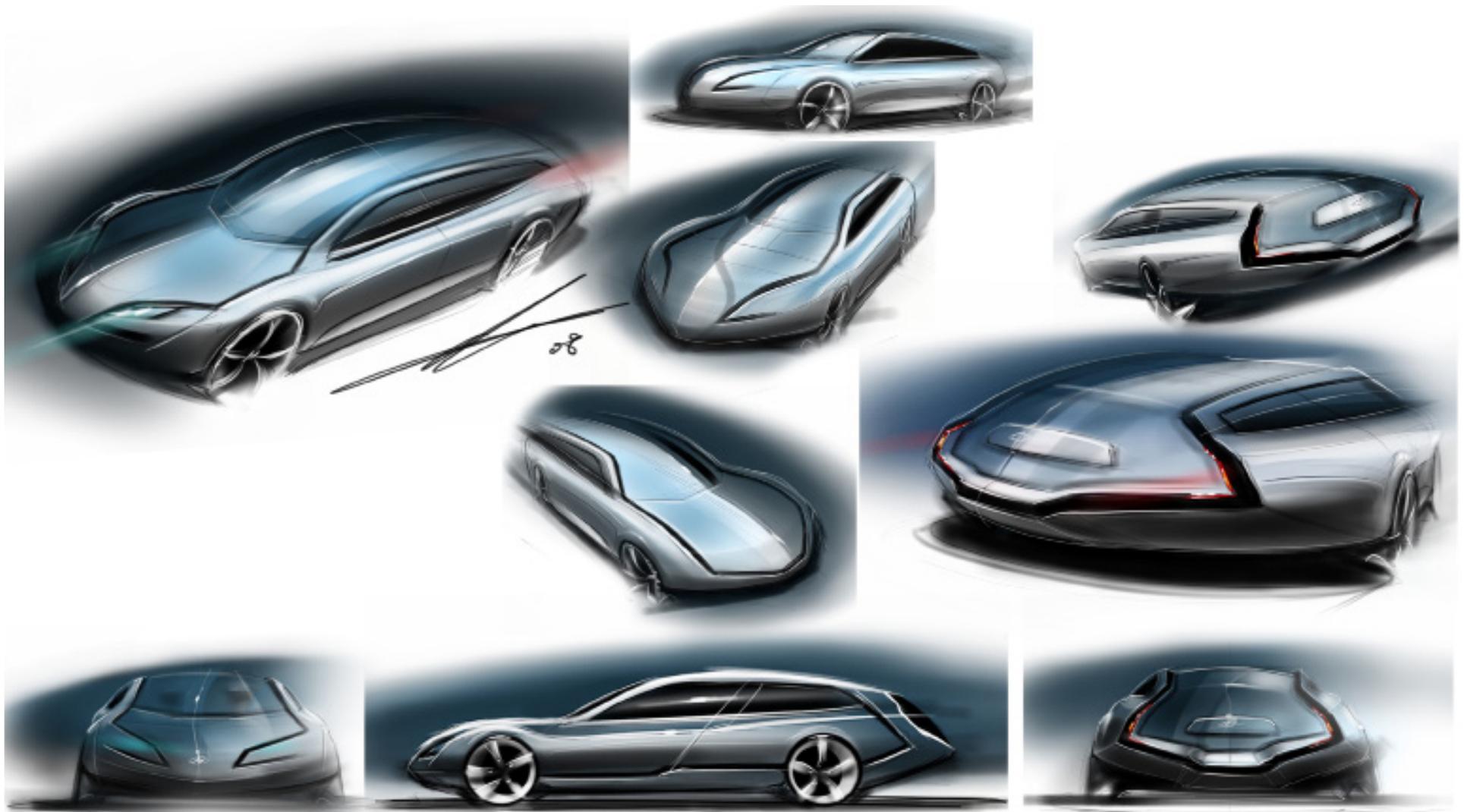


Figure 063: Hyundai Exodus Design two ideation sketches.



Figure 064: Hyundai Exodus Design two Test Clay model Process.

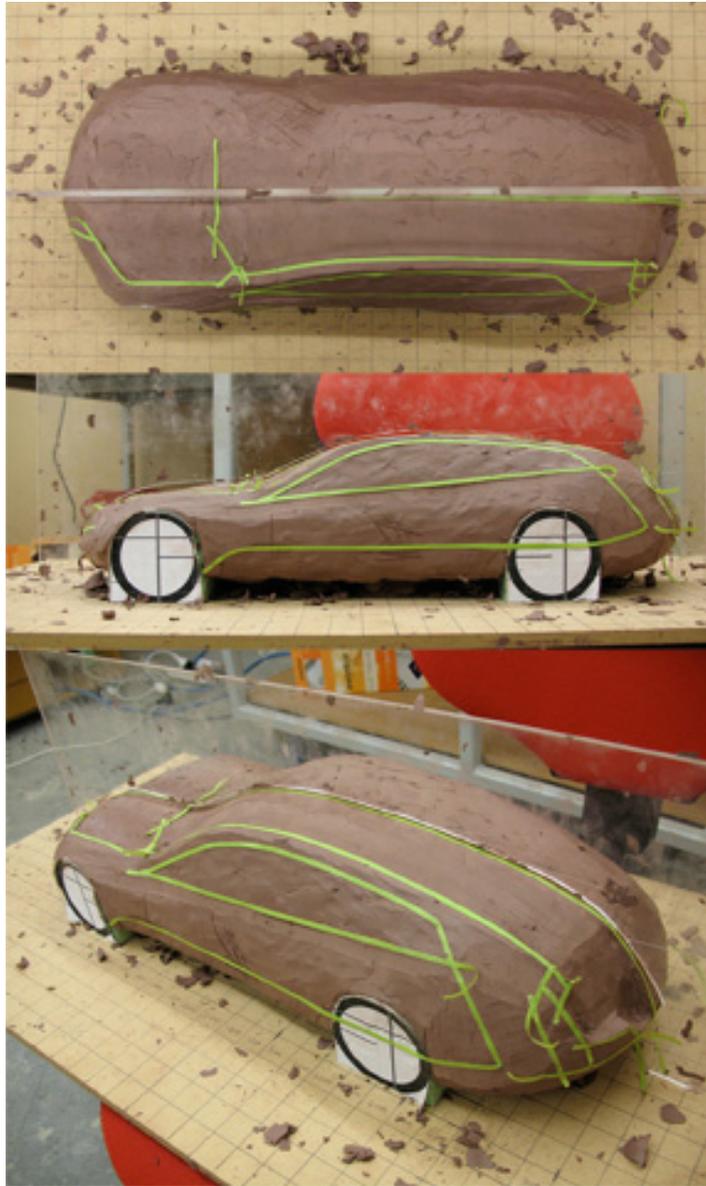


Figure 065: Hyundai Exodus Design two Test Clay model Process.

(Figure 062 - 065)

Certain aspects of the initial criteria are beginning to show through, with the exploration of function and aggression proving to be important departure points for further design work. Other aspects of the surfing mentality are not yet obvious and will require development in order to gain a visual identity easily associated with surfing. The strength of the surfing influence on this vehicle needs to be increased, with themes such as freedom, flow and calm to be included in further design refinements. Of particular note in this phase, is the work done on wetsuit related design. This aspect will help accentuate some of the initial criteria, especially the nature of the extreme conditions surfers are often faced with.

The conventional look of this vehicle works well with the aggressive body lines and is visually appealing. However, as has been previously stated, convention is not the aim of this study and although at this stage it seems to help with the appeal of the design, it is currently too strong and as a surfing vehicle, it therefore detracts from the balance required. Convention and conformity are also somewhat contradictory to the essence of a surfing culture, one which is often associated with varying forms and levels of rebellion. Further work should therefore be undertaken that attempts to depart from this convention and moves towards experimentation, especially with regard to proportion. It must be noted that it is not imperative that the final design be entirely unconventional, but rather that where convention is present, it appears more subtly than in this phase.

Some work in this part of the design process was done to bring in an influence from Hyundai to visualise how it would fit with the themes. These aspects were an interesting exploration and essential as part of the process since the vehicle is intended to become part of their fleet. However, this study is aimed at developing a complete identity for Hyundai and therefore, whether their current visual cues are included is optional and up to the discretion of the designer and the stated criteria. If possible it would be advantageous to include them but at this stage it will be sufficient that they have been explored.

### 9.2.2 Direction

From this point, further work will include a move away from the conventional station wagon style and yet will retain the “two-box” look as an association with both the SUV and the station wagon. Visual coherence with the functional aspect of the design should stay apparent but there is a strong requirement for more influence from the main themes outlined previously.

### 9.3 Final Design Development

It was decided from the previous phase that the design did not accurately reflect the surfing mentality or reflect the style of vehicle that surfers would associate with their sport. This concept phase aimed to further explore the wetsuit idea which was briefly explored in phase two and inclusion of the dune buggy theme researched in the previous section. To achieve a more conceptual proportion, the one-box proportion was again explored but this time in conjunction with a stronger influence of the themes outlined in the brief: Manoeuvrable, Extreme, Dynamic and Freedom.



Figure 066: Beach Buggy.

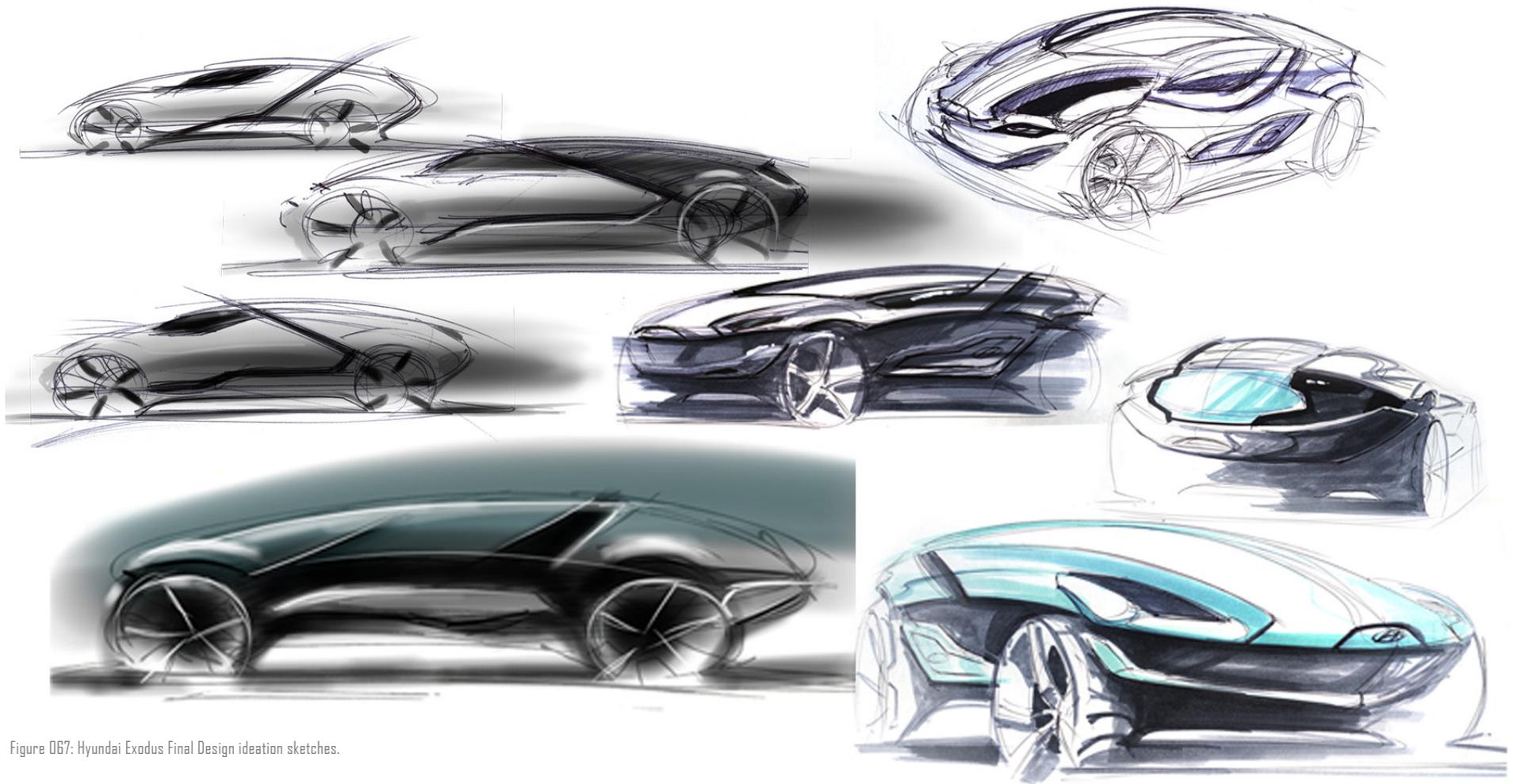


Figure 067: Hyundai Exodus Final Design ideation sketches.

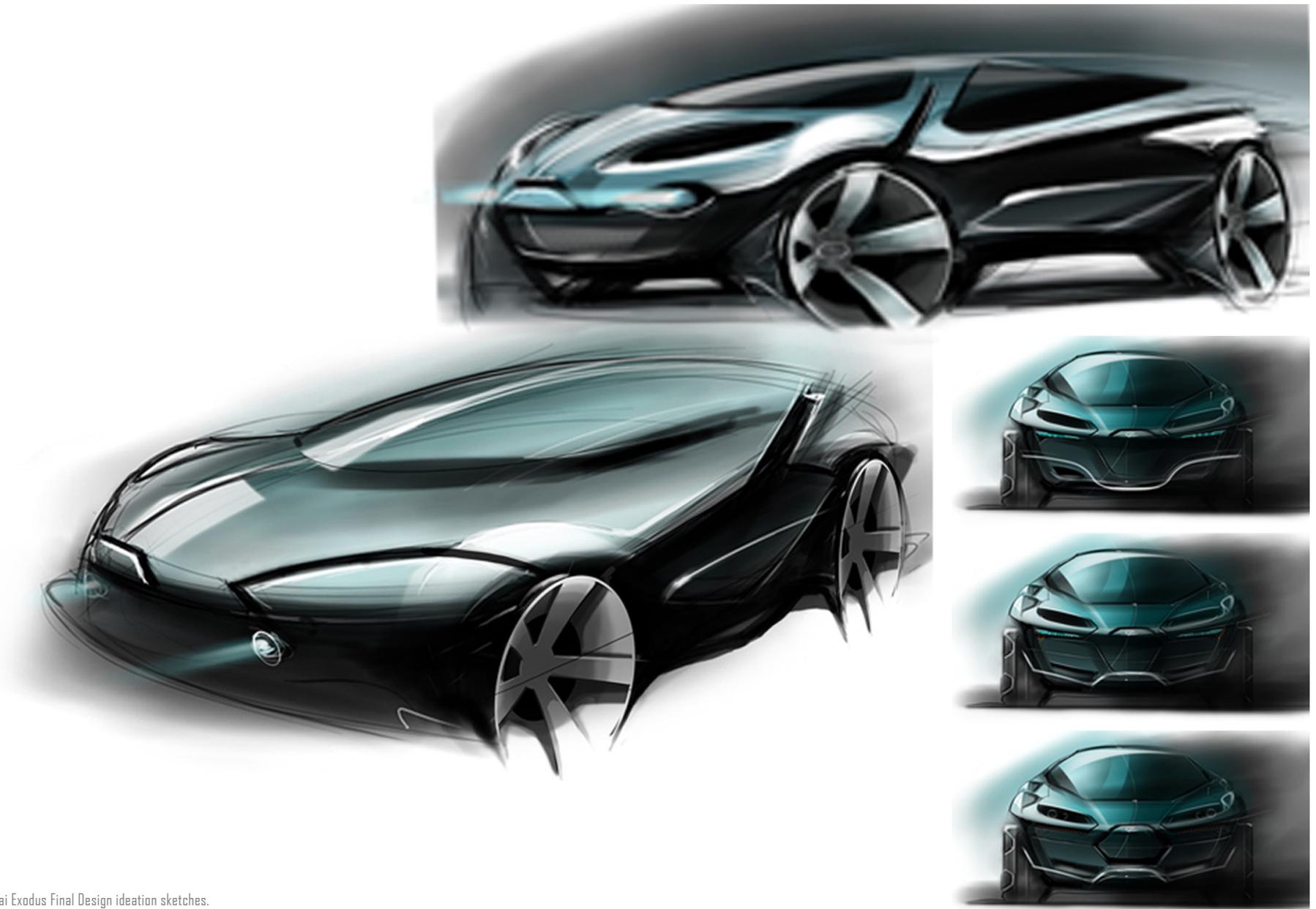


Figure 068: Hyundai Exodus Final Design ideation sketches.

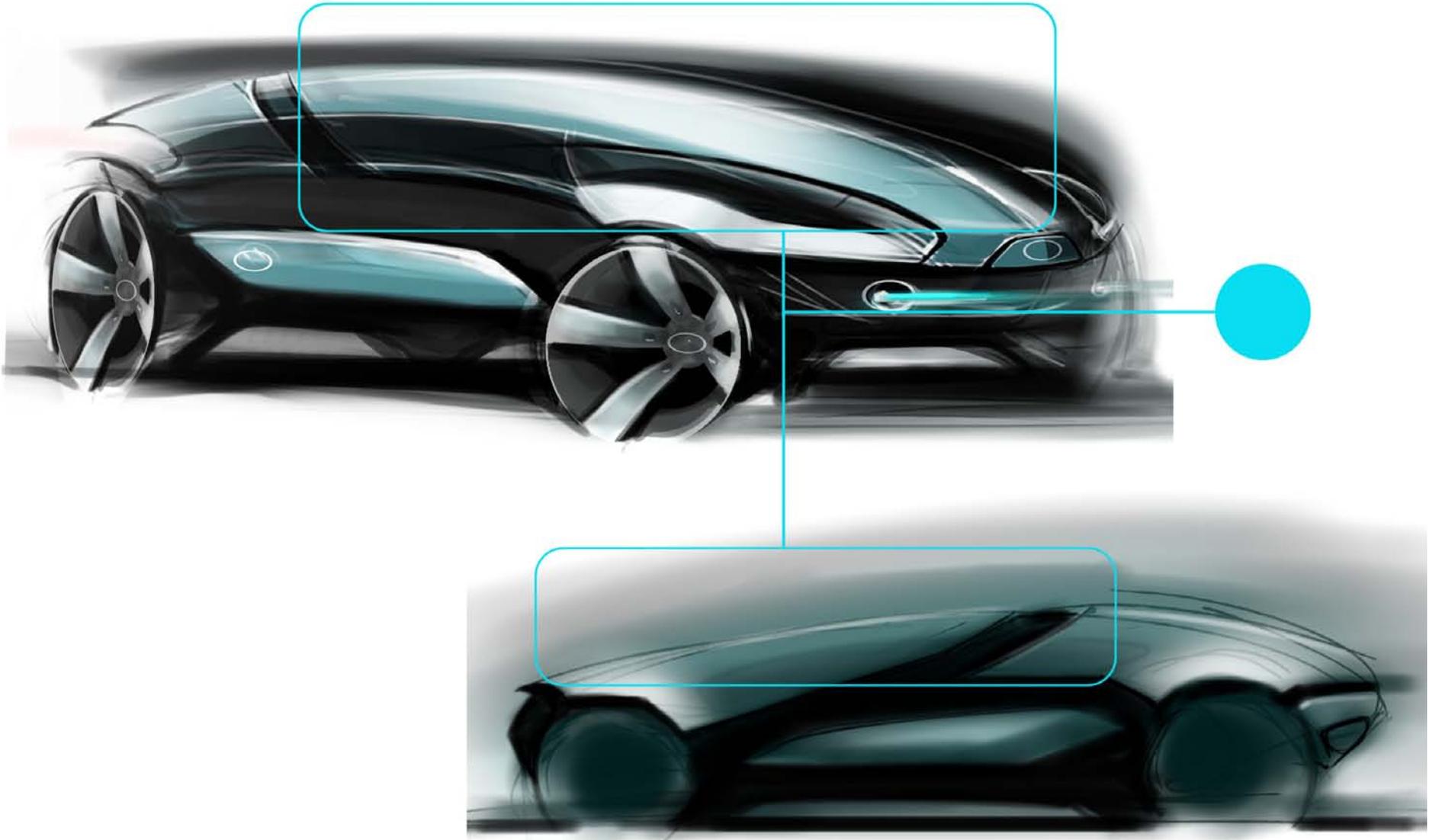


Figure 069: Hyundai Exodus Final Design Proportion Analysis.

(Figure 067 - 068)

Exposing the tyres and accentuating the wheel arch form was directly influenced by the dune buggy research. Detached and open wheel arches are a strong visual form within dune buggy design, the wheel clearances are a reflection of off-road capabilities and manoeuvrability. By incorporating these visual cues into the concept it resounds with the emotions which have been hitherto linked to surfing. We begin to see an element of ruggedness that previous designs lacked whilst also adding to the air of aggressiveness that was explored earlier in phase two.

One box proportion was again revisited in response to criticism of the lack of conceptual and futuristic feel seen in phase two. One-box did not work in the first phase due to the stance being more upright and the passenger compartment quite far forward, which made the overall proportion closer to that of a minivan. Therefore the cabin in this design is further back and the roof line is lowered. The lower roof line gives a sportier look to the vehicle and also lowers the overall height, subsequently the passenger compartment has moved back and the proportion is closer to that of a station wagon and not like a minivan. This proportion also adds tension to the side profile silhouette and removes the extreme curvature of the cowl, identified in the correspondence with Hyundai Motors.

Surface treatment is simple and flowing which reflects the later concepts of phase two but with revised proportion and stronger influence from off-road vehicles, the undesirable sense of luxury is removed. The one box proportion combined with the simple treatment of surfaces enhances the sense of freedom created by the dune buggy features.

This concept appropriately address the problems with earlier designs and exhibits the themes and ideas required by the design brief. The next step will be to refine this concept into a package drawing that includes consideration of ergonomics and how fundamental functions can be included.

### 9.3.1 Package Drawings (Figure 070 - 072)

The translation of the chosen design to an accurate package drawing proved that there was a need for a reversion to a two box proportion. Ergonomic testing for a seating space on the bonnet combined with a need for head room internally meant that the design evolved to a cab-forward, two-box layout. The aim was to retain the feel of the previous concept and make as few visual changes as possible.

It became apparent early in this phase that the seating position of occupants would be severely compromised by this one-box design. The shape translated into a package drawing did not give enough room for an upright seating position and the angle of the windscreen could prove troublesome for visibility. A reclined seating position could provide a solution but would compromise the amount of room in the rear for storage and sleeping arrangements and would not solve the problem of the high angle of attack of the windscreen. It was therefore decided to translate the design to a two box package but with a cab forward stance to keep the sporty look achieved by the previous proportion and maximise rear storage.

A length of 5.0 metres was chosen initially in order to fit two rows of seating and maximise space in the rear for storage, a fuel cell and sleeping. This is a similar length to current SUV's but approximately 500mm longer than most station wagons. This stance remains lower than a typical SUV that it may retain a sporty look and stay away from the typical SUV proportion. The overhangs are relatively short which also adds to the sporty look and both are similar length to maintain balance with the rear being slightly longer to accommodate wet storage in the rear bumper.

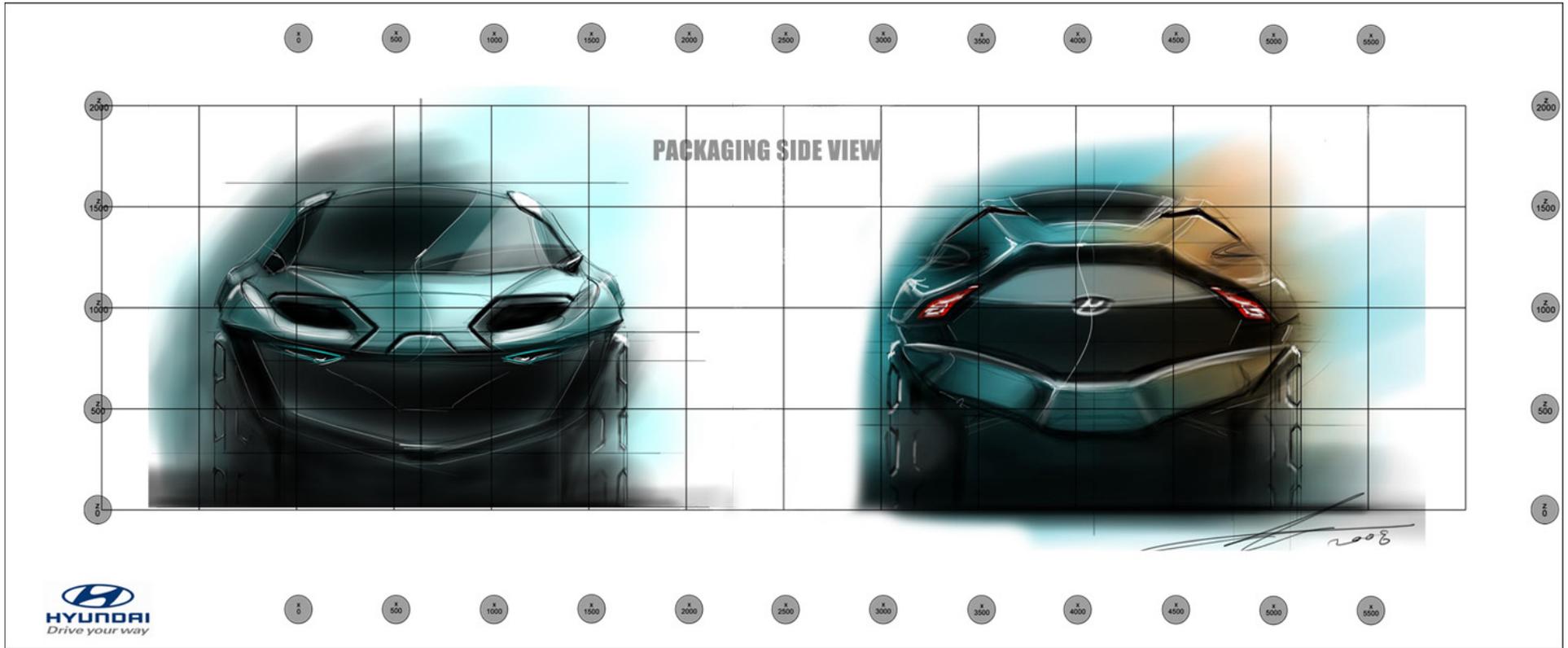


Figure D70: Hyundai Exodius Final Design Package Drawing.

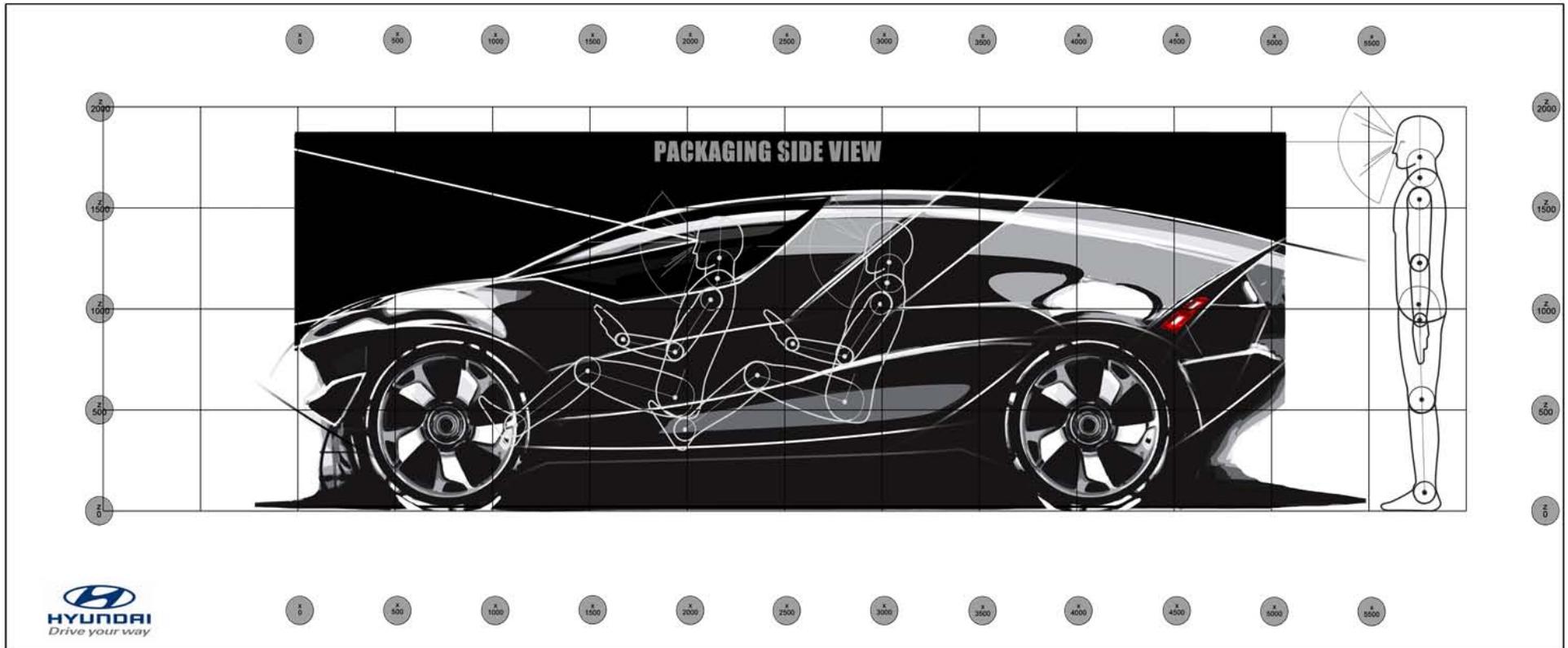


Figure D71: Hyundai Exodus Final Design Package Drawing.

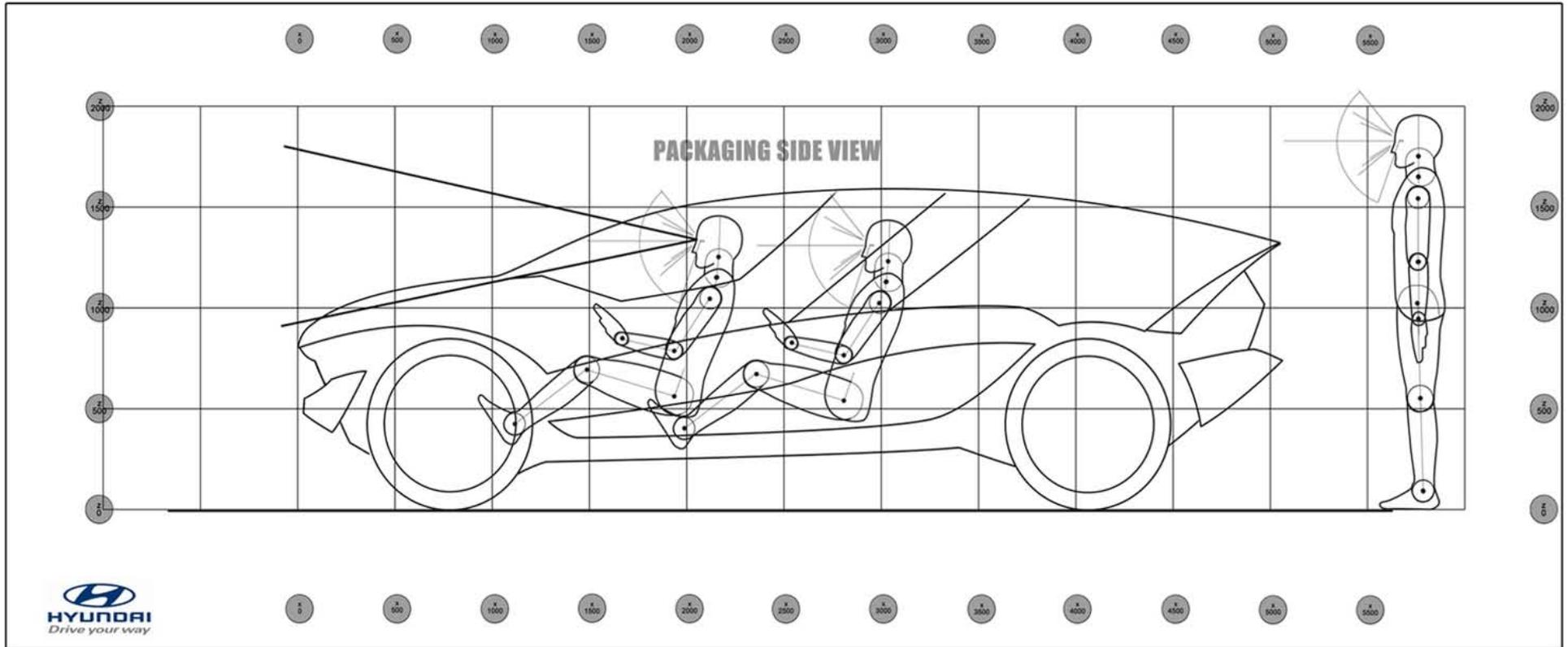


Figure D72: Hyundai Exodius Final Design Package Drawing.

### 9.3.2 Quarter view Sketches (Figure 073 - 075)

Before moving to clay modelling, a final set of sketches was produced as proof of the two-box concept. These needed to combine the essence of the concept with the practicality of the package drawings. Aside from the proportion, the majority of the design remained unchanged. The dune buggy and wetsuit influences remain obvious as do the main themes. The cab forward stance further enhances the conceptual look and finally an appropriate yet completely unique proportion has been achieved.

These are the first two box drawings that appropriately portray the fundamental themes targeted by this research and from these it was decided to proceed with clay modelling from the package drawings completed in the previous section.

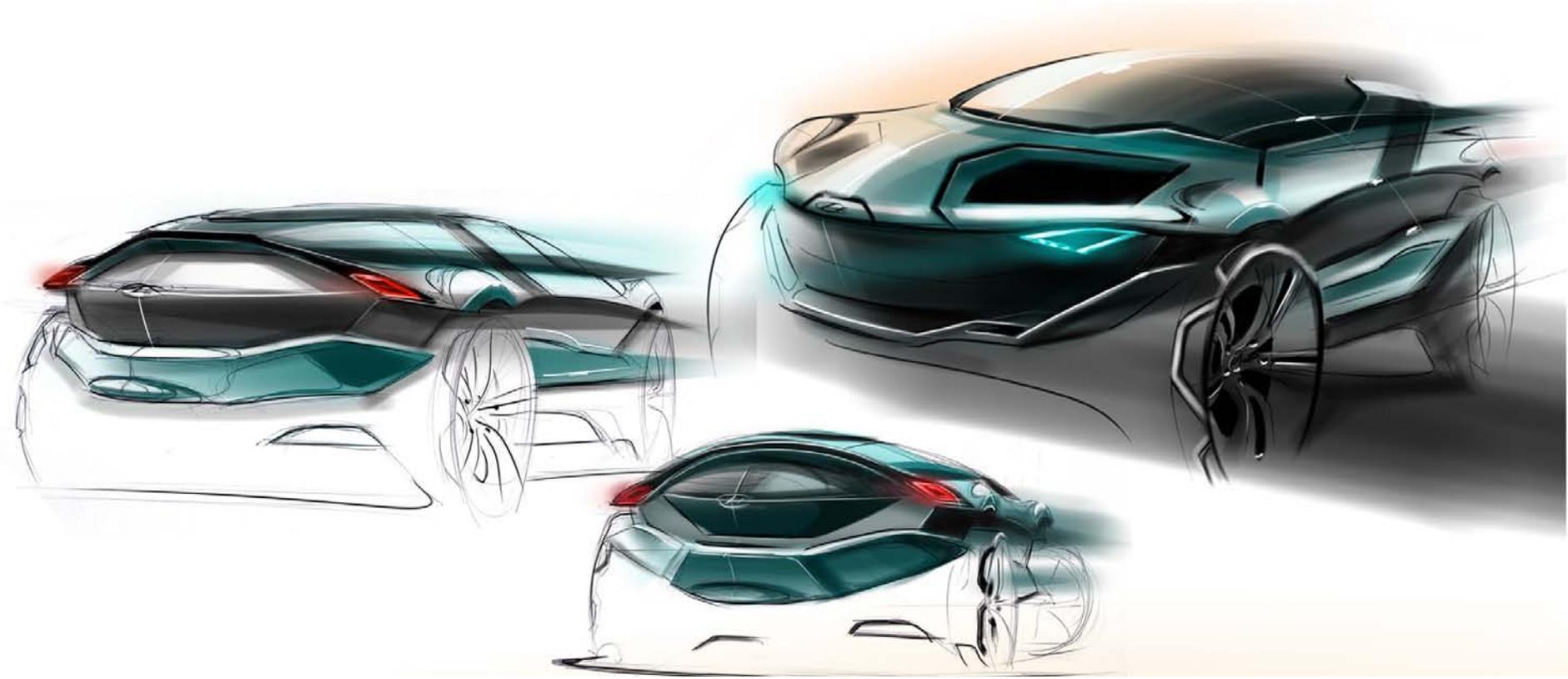


Figure D73: Hyundai Exodus Final Design Quarter view sketches.



Figure D74: Hyundai Exodus Final Design Quarter view sketches.



Figure 075: Hyundai Exodus Final Clay Modelling Process.

### 9.3.3 Clay Modelling

The clay modelling process was a vital part of visualizing the design as it was the last physical model before Computer Aided Drawing (CAD) and the final model. It was used as a platform for final line, surface and detail design. Several problems were identified in this process and subsequently solved before being scanned for CAD modelling. These problems included the feature line at the bottom of the wetsuit 'shell', the visual weight of the rear bumper, the curvature of the rear window lines and the abrupt breaks on the guards.

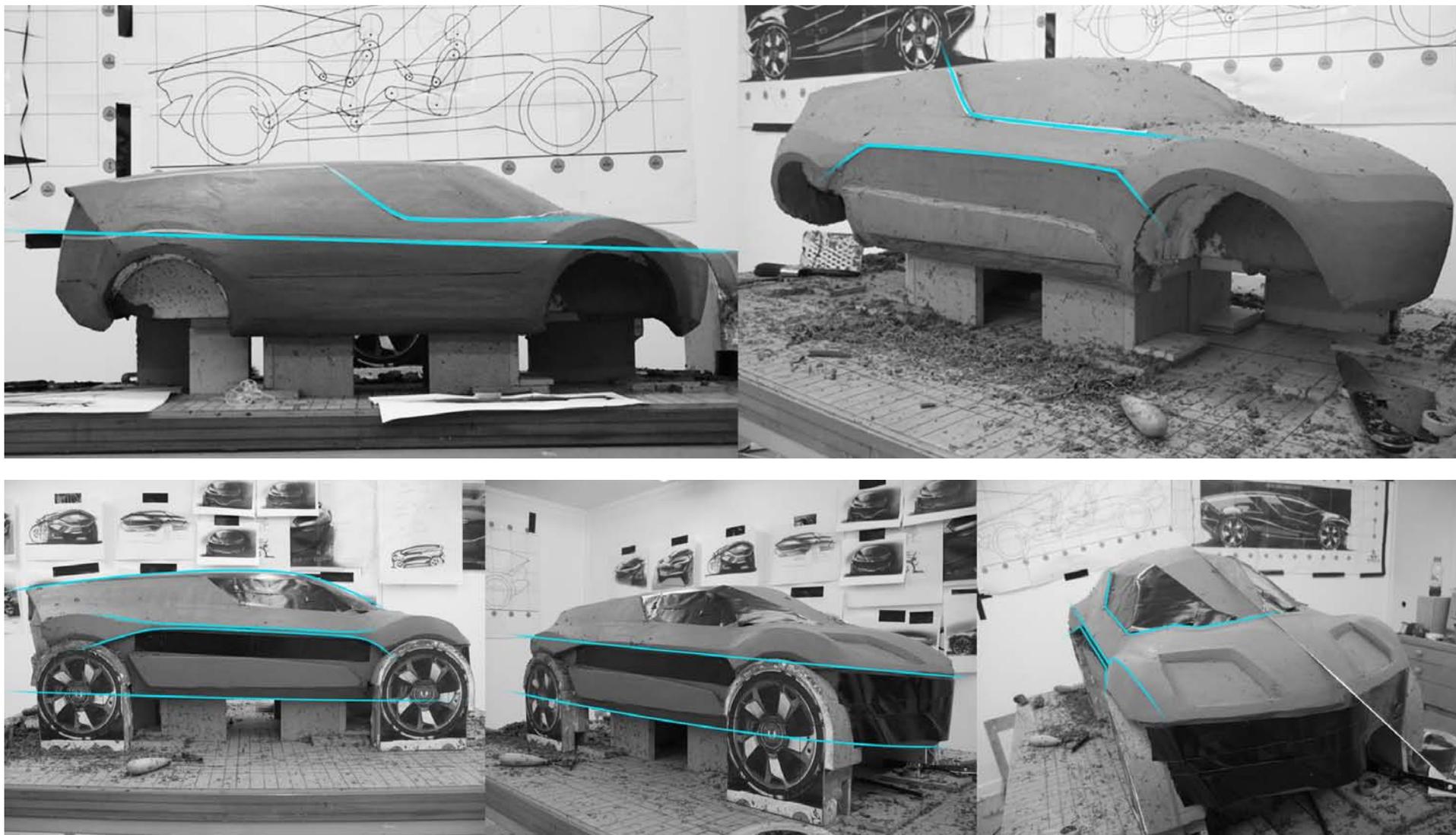


Figure D76: Hyundai Exodus Final Clay Modelling Process.

(Figure 076)

The first and greatest problem was the bottom line of the shell design. It physically appeared too sharp and exhibited a lack of tension and coherence with the tray at the bottom. At the points where the bottom of the shell merges into the guards, extremely sharp corners have been created which require attention and refinement. These sharp angles detract from the overall flow of the line work and whilst they appear bold they are confusing to the eye and do not correlate to the lines of the bottom tray or shoulder line. The feature line also shows a lack of tension and makes the overall styling ambiguous and in need of more clarity.

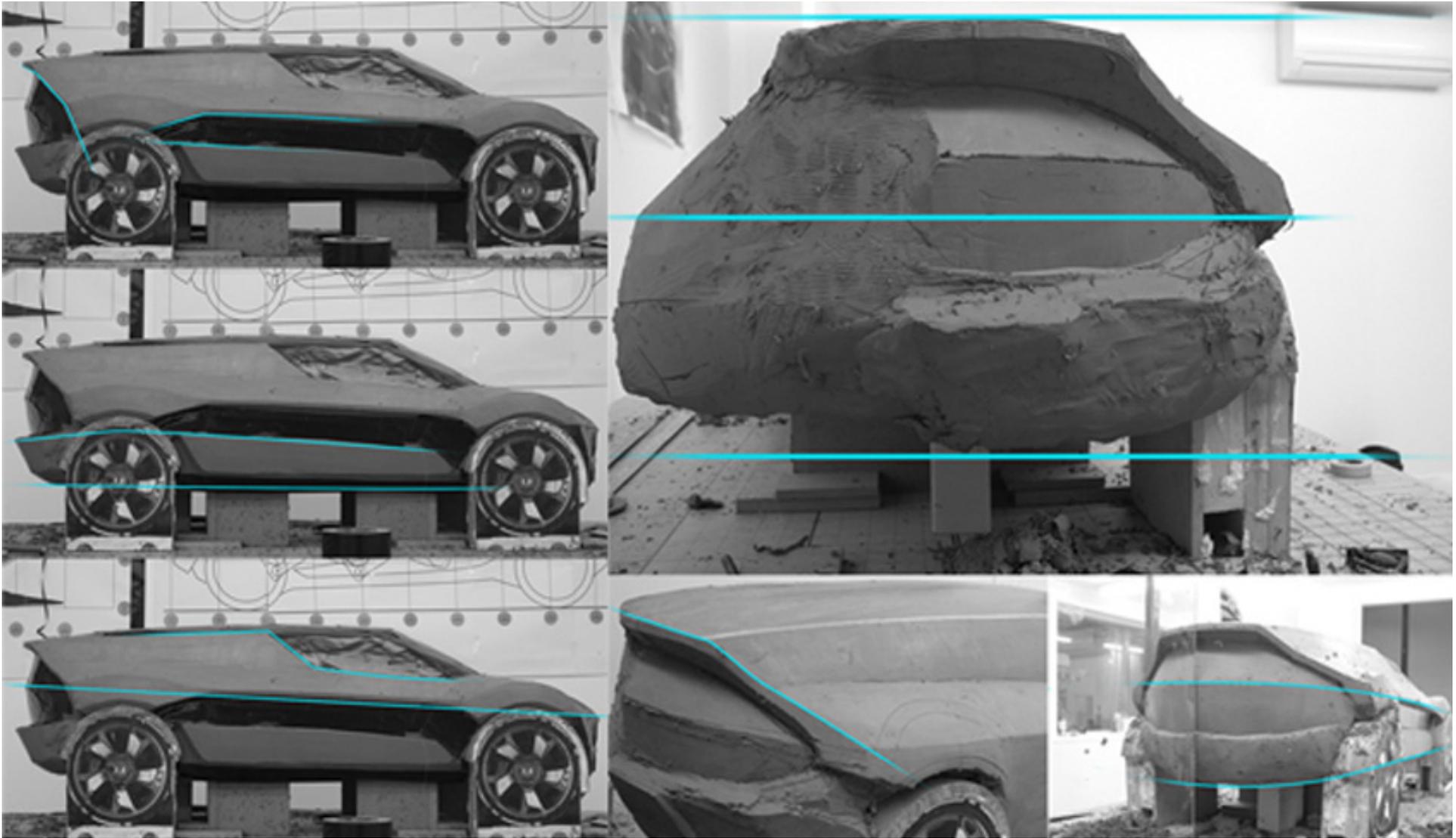


Figure D77: Hyundai Exodus Final Clay Modelling Process.

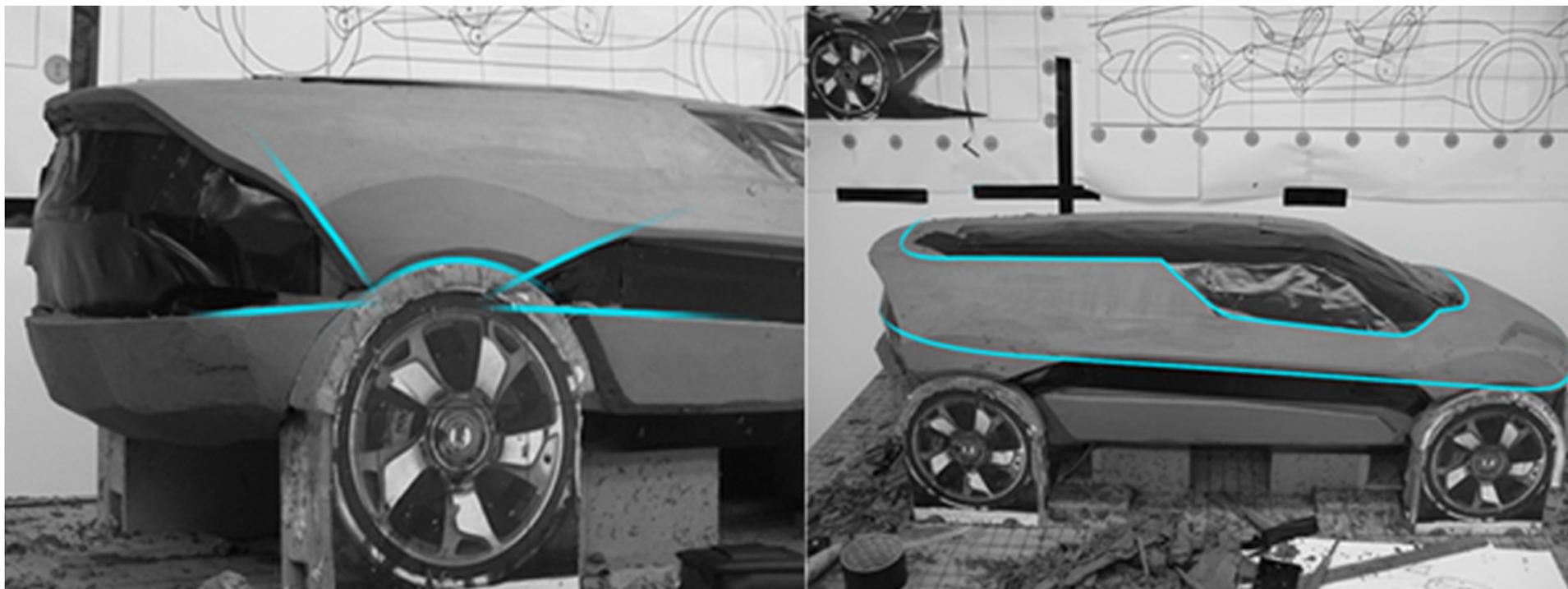


Figure D78: Hyundai Exodus Final Clay Modelling Process.

(Figure 077- 078)

The rear bumper has a drastic visual effect on the balance and flow for two reasons; it is visually large and bulky and also appears to be somewhat separate from the rest of the car. This problem is compounded by the sudden breaks in the rear guards which are there to accentuate the wetsuit skin look. From the front quarter view it appears that a piece is missing from the rear which disturbs the continuity of lines from front to rear. This lack of flow and the detached and large visual mass of the bumper require further attention.

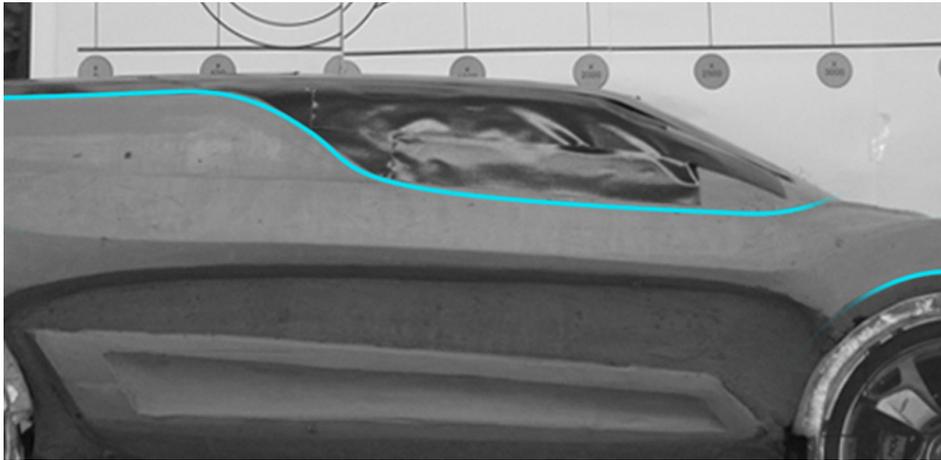


Figure 079: Hyundai Exodus Final Clay Modelling Process.



The 'Y' shaped lines around the rear window also detract from the visual flow of the side profile as they create too many curves and shapes not fitting of the direction of the design. It is possible that the rear window should be excluded in favour of increased privacy for the sleeping compartment in the rear and therefore the removal of the complex lines that create it.

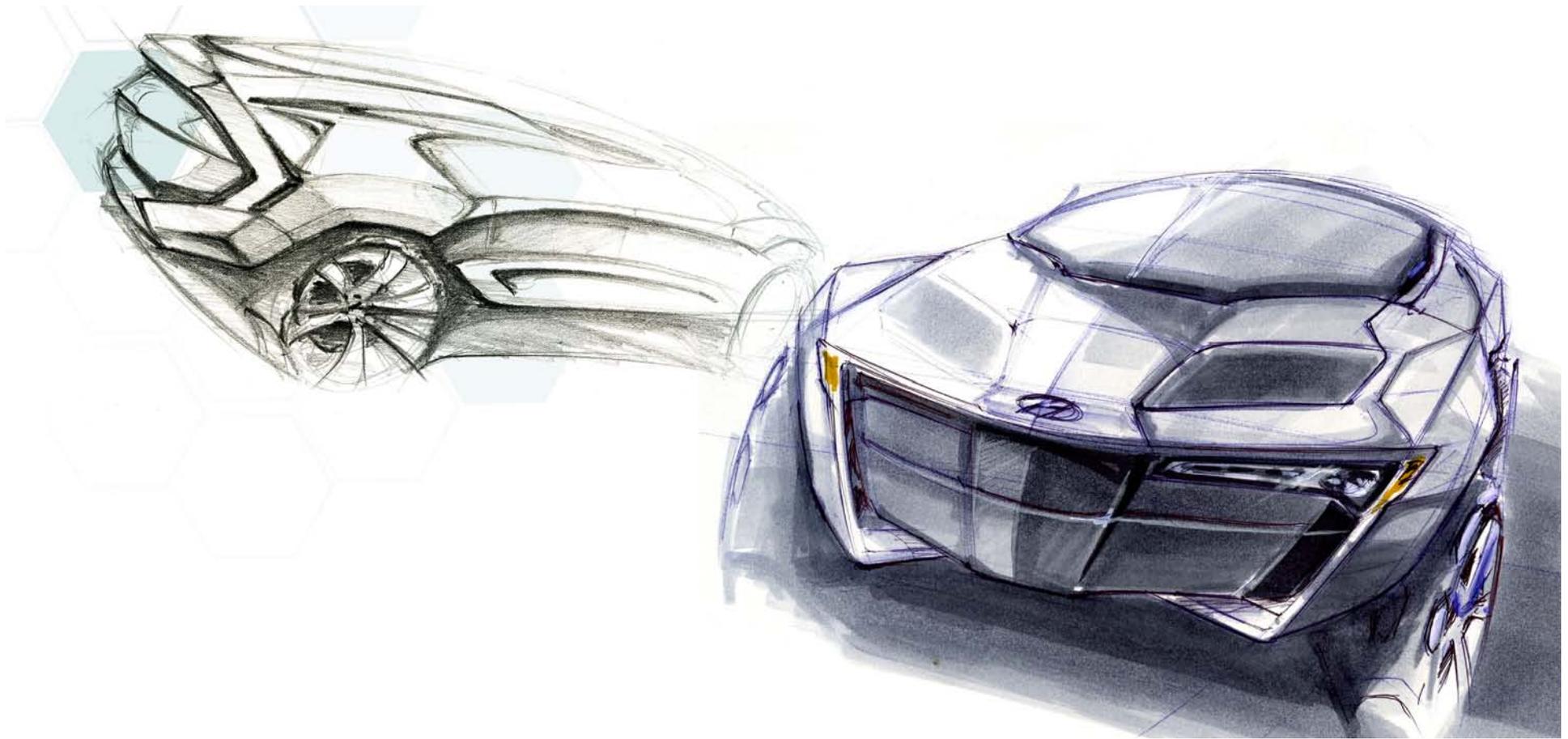


Figure 080: Hyundai Exodius Final design development Sketches.

#### 9.3.4 Further Development Sketch (Figure 080 - 087)

Further sketching was completed to resolve the final major problems found in the clay model before finalising the model itself. The majority of work was done on the feature line that makes up the bottom edge of the wetsuit shell and also the refinement of lines around the guard and bumper areas.

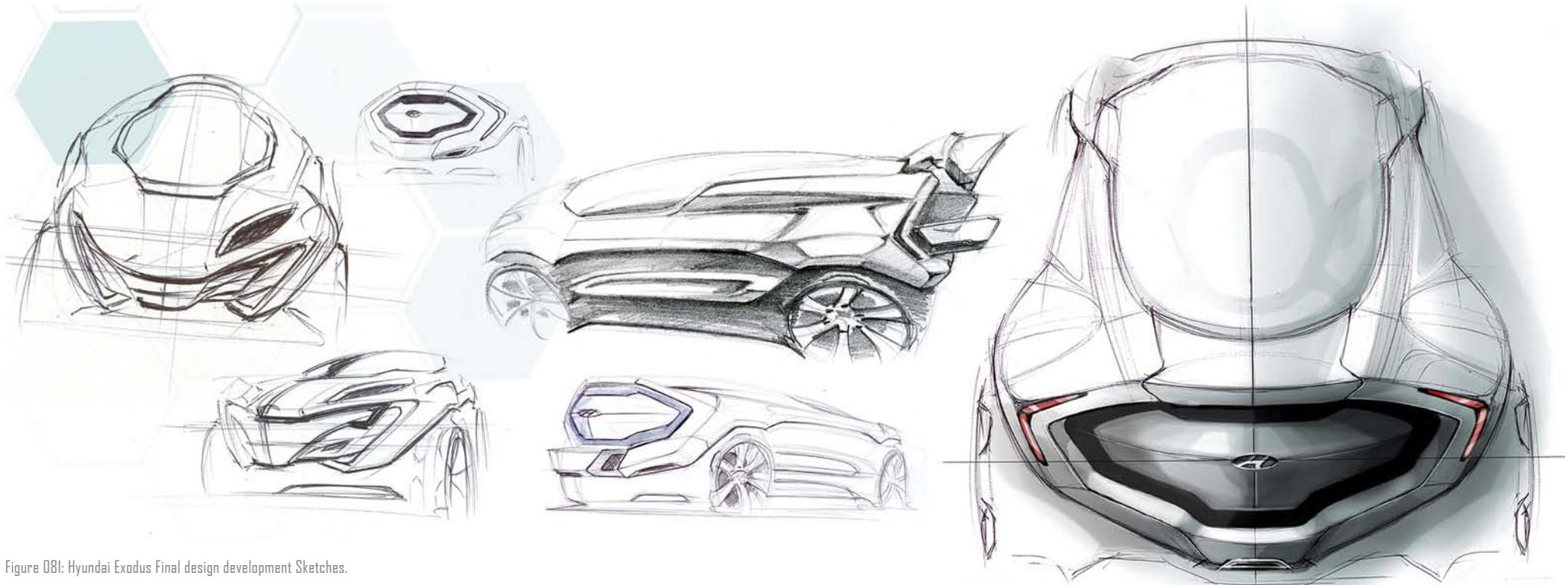


Figure 081: Hyundai Exodus Final design development Sketches.



Figure 082: Hyundai Exodus Final design development Sketches.

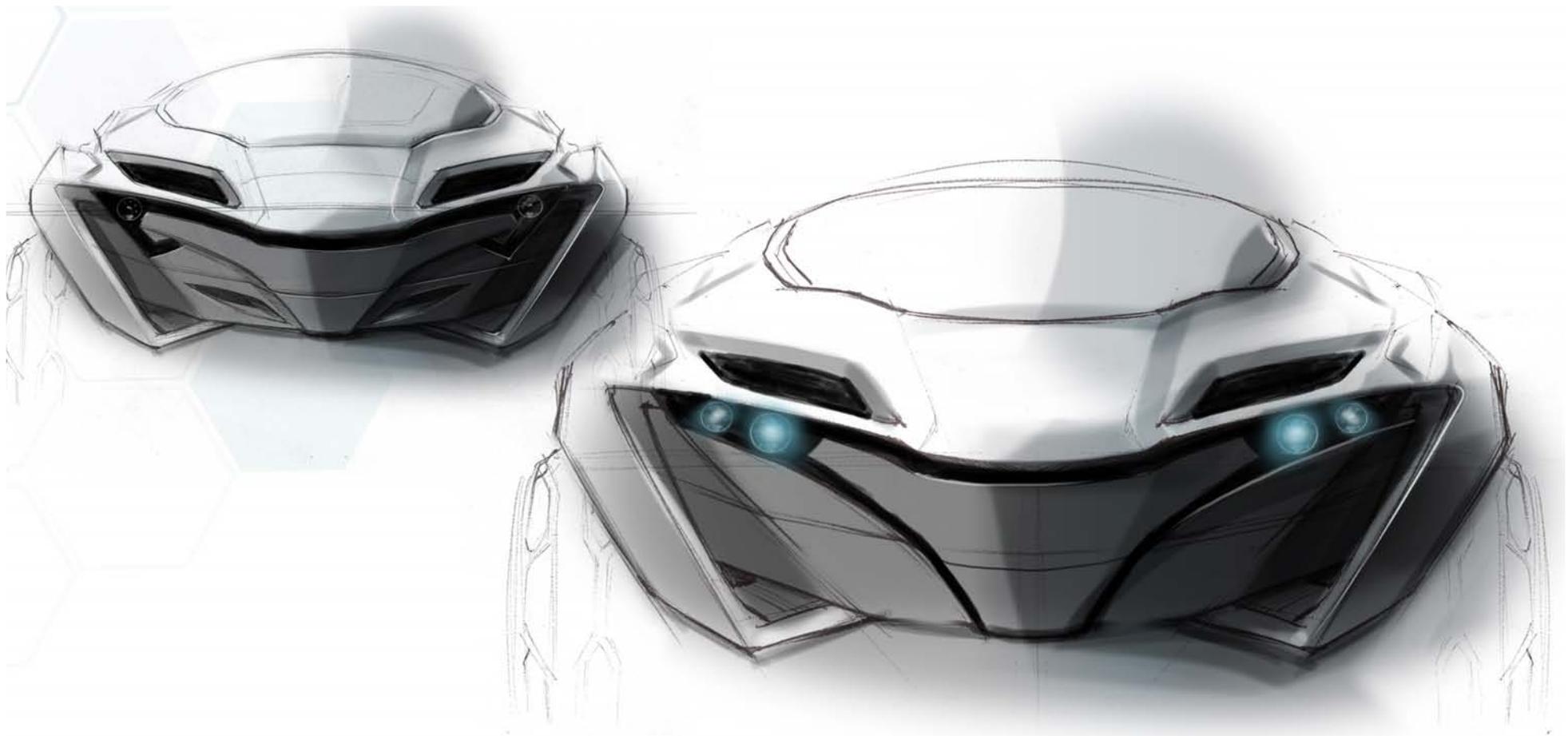


Figure 083: Hyundai Exodus Final design development Sketches.

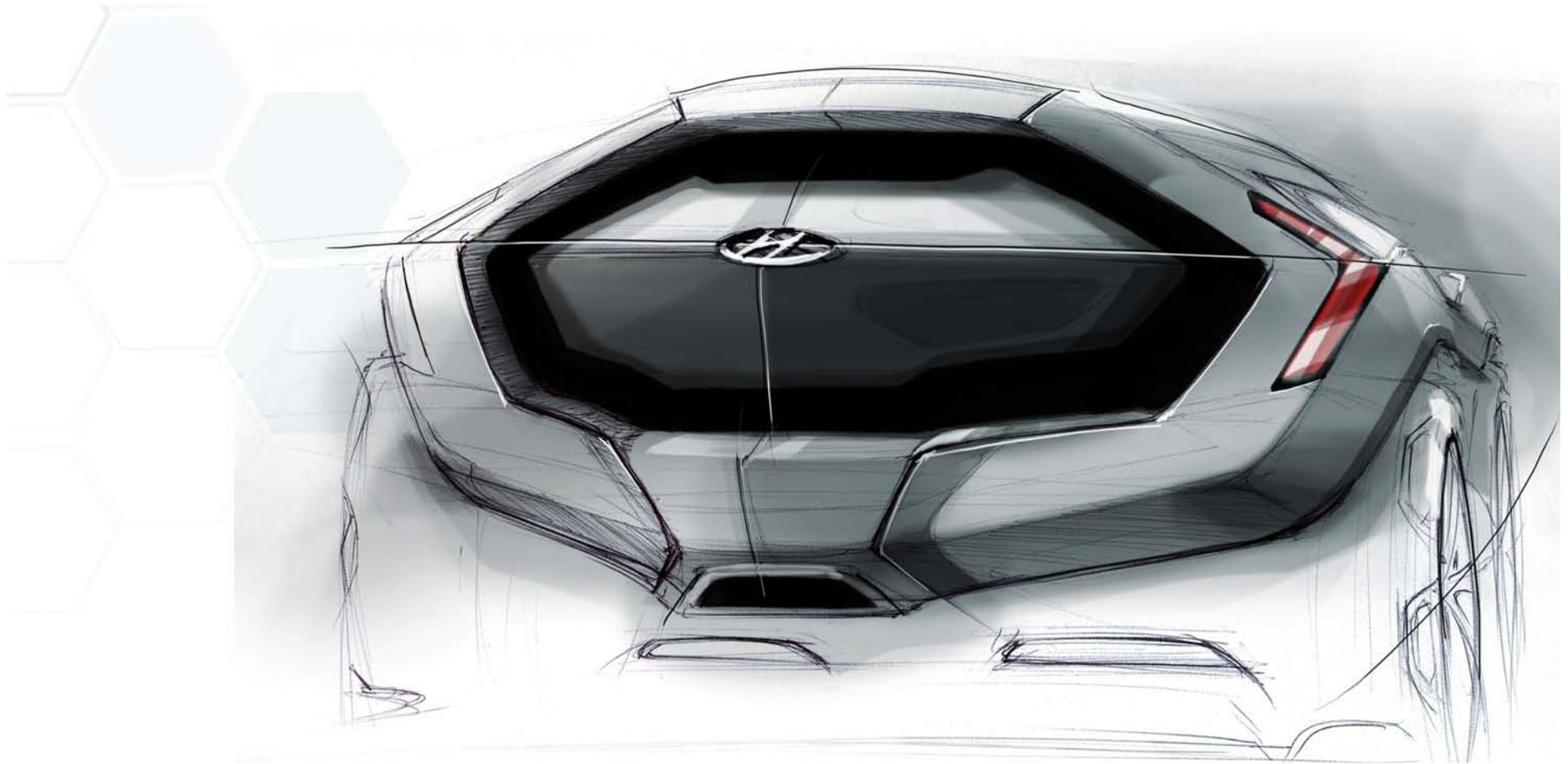


Figure 084: Hyundai Exodus Final design development Sketches.



Figure 085: Hyundai Exodus Final design development Sketches.



Figure 086: Hyundai Exodus Final design development Sketches.

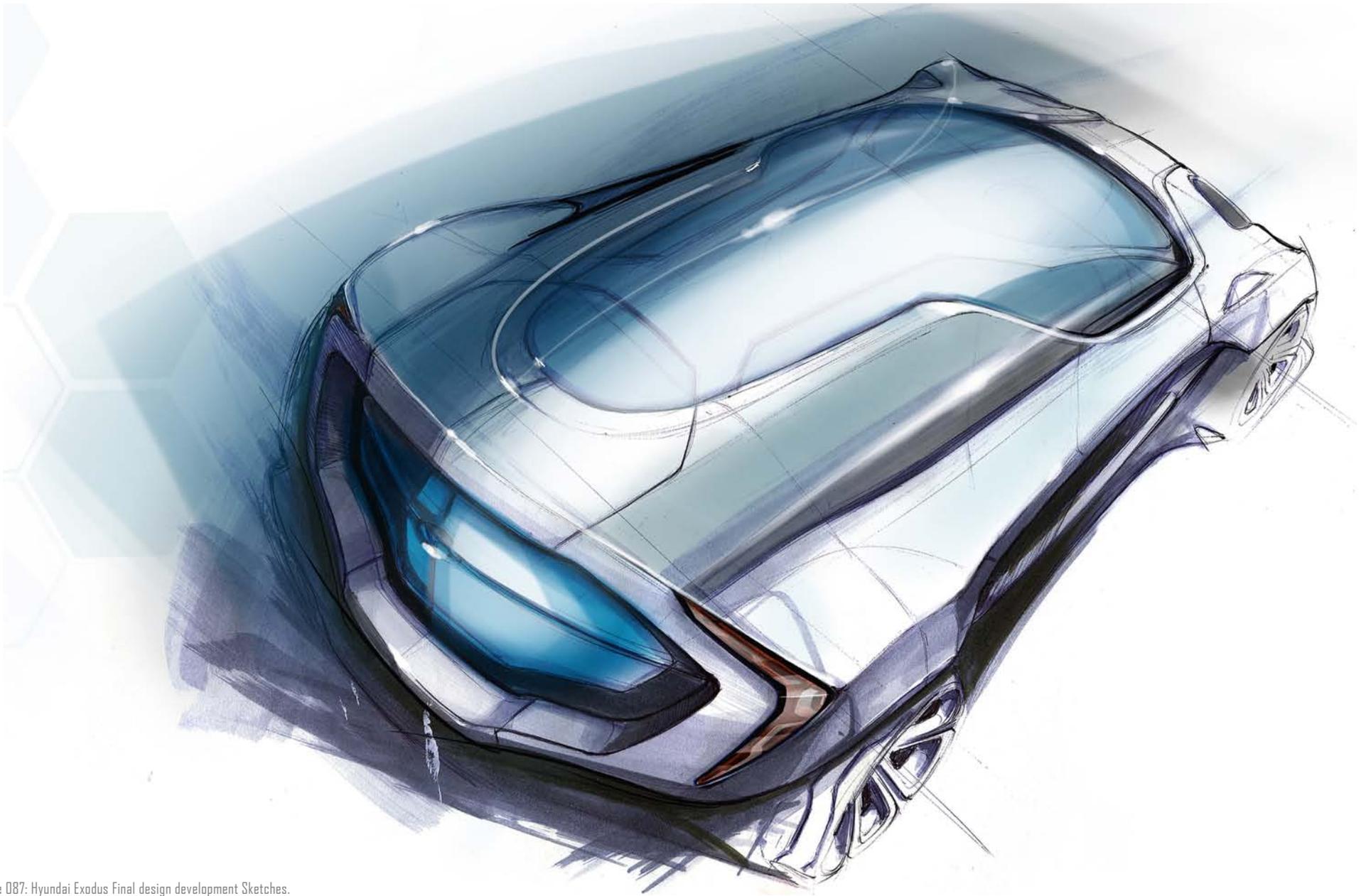


Figure 087: Hyundai Exodus Final design development Sketches.

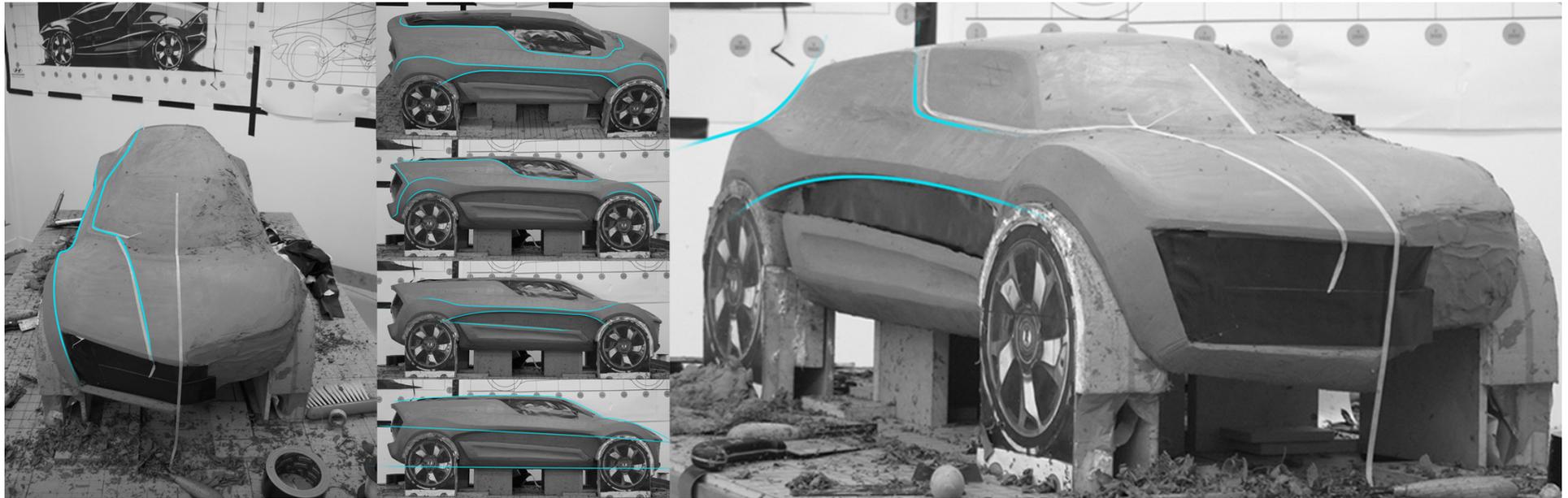


Figure 088: Hyundai Exodus Final design further clay modelling process.

To better integrate the bottom line of the shell and achieve more coherence with the rest of the design, it was tensioned and thickened. This gave the design more balance in the line work as this is more in keeping with the tension and boldness of the base line of the glasshouse and the roof line. Thickening the edge produced a surface which connected the front and rear guards and integrated them better into the design.

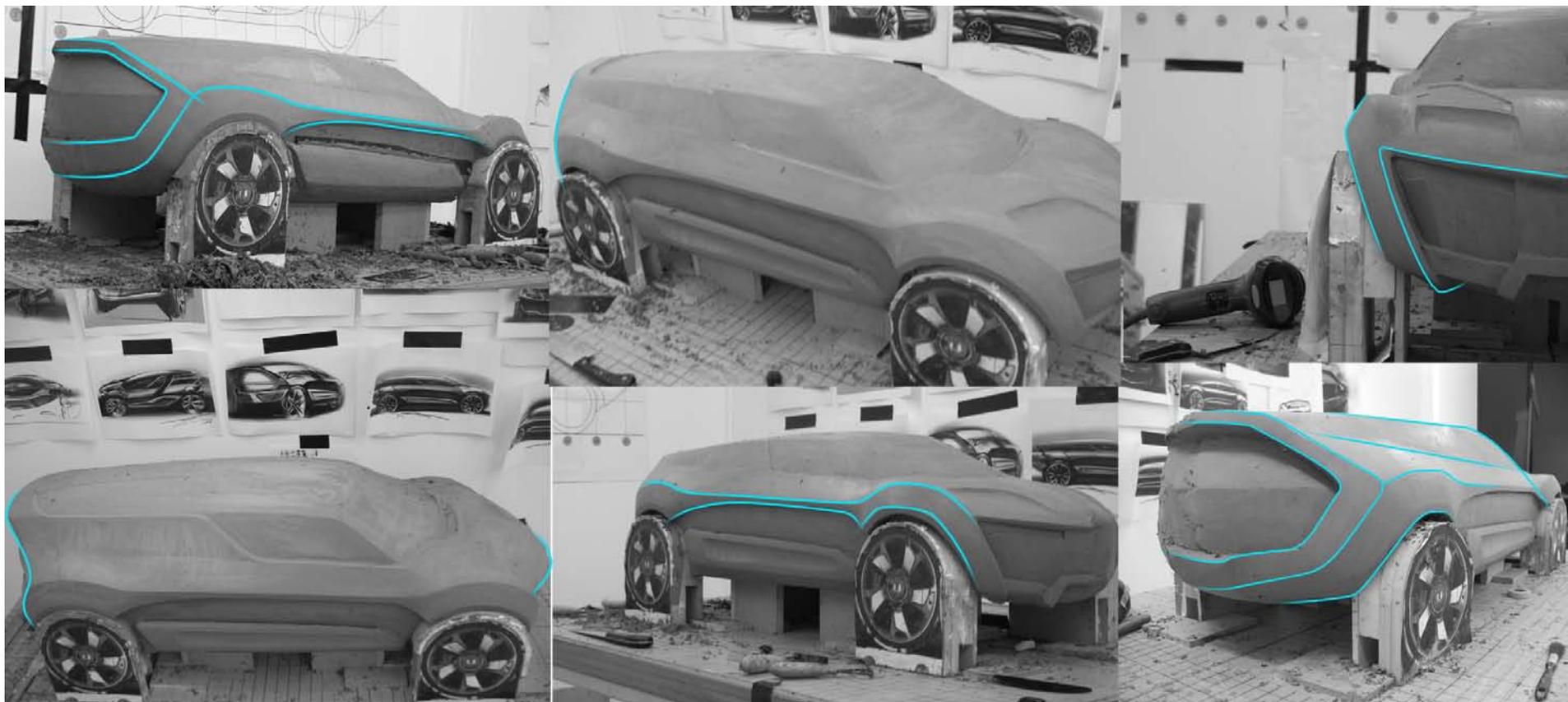


Figure 089: Hyundai Exodus Final design further clay modelling process.

To solve the problem of disjointedness in the rear bumper area, the gap between bumper and rear guard was filled. This gives more clarity to the area and brings the bumper in as a more unified part of the body. This also gave the guard surfaces an elongated flow so it was decided at this point to try to carry the flow of this surface through the front guard as well. Combined with slightly more angular guards this creates an appealingly bold inorganic feel to that surface, further adding to the rugged and capable look derived from the dune buggy theme.



Figure D90: Hyundai Exodus Clay model scanned into CAD.

These ideas were subsequently translated into the existing clay model for final approval before scanning to CAD. Some detail work was done and further minor refinements to achieve the most succinct overall package from all angles.

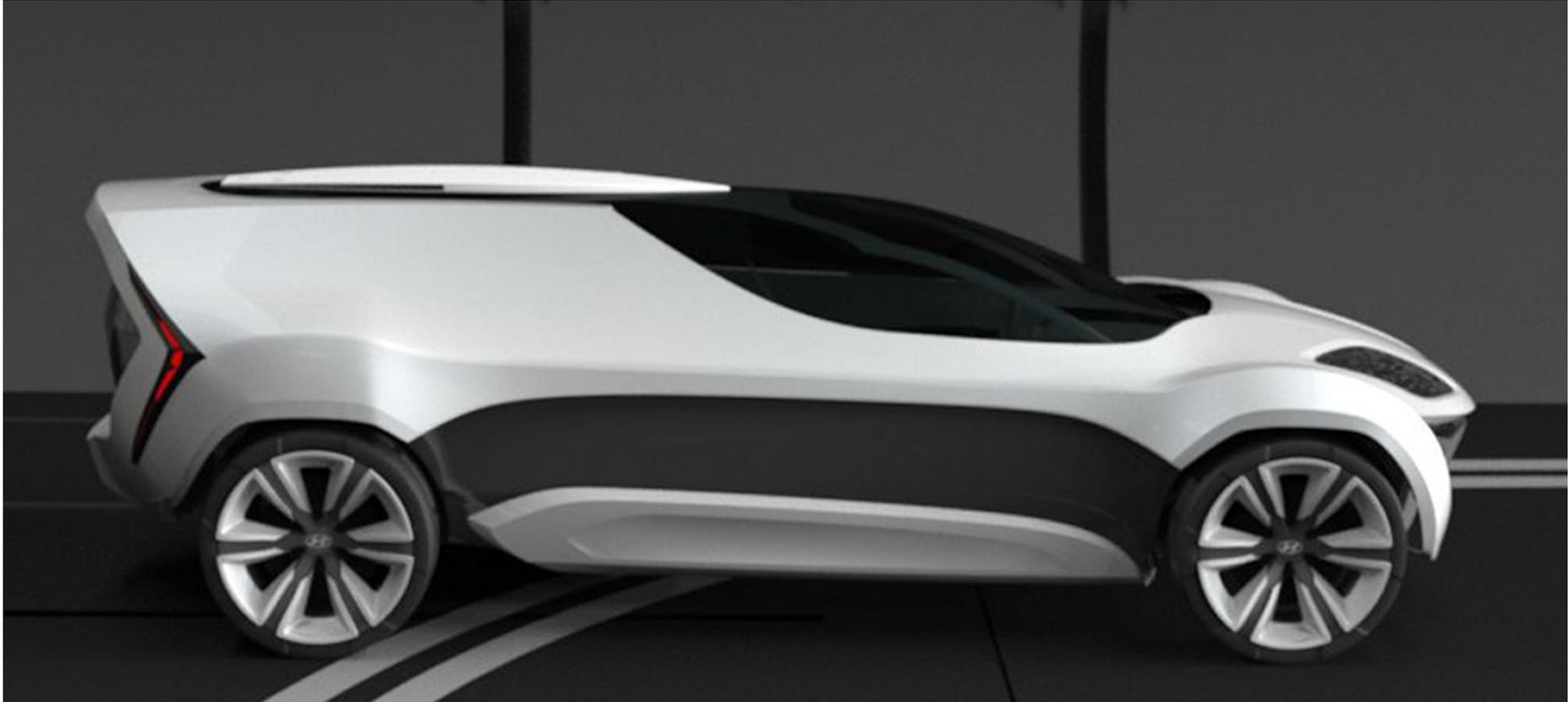


Figure 091: Hyundai Exodus Rhinoceros modelling process.

#### 9.3.5 CAD (Figure 088 - 091)

The clay model was scanned in ten pieces by Plastic Design Technology and each part was stitched and exported to Rhinoceros 3D in order to develop the design for computer numerical control (CNC) machining and Rapid Prototype output. The CAD stage also included some minor refinement to proportion and surfaces.

The proportion was altered in CAD to increase the amount of usable interior space; both the length and width were increased by approximately 300mm (1:1 scale). The length increase gave the interior sleeping space a more appropriate length and also moved the side window line rearward, giving passengers in the second row of seating a more open viewing angle while still retaining the privacy for the rear sleeping space. The width increase was made to maintain the desired proportion and overall stance and also increased the amount of interior space. (see appendix number 2).

The lower side panel line was adjusted to give the profile view a better flow and better reflect the lines of the upper shell. The top edge of the panel was changed at the rear and made to taper downward rather than ending at a peak and detracting from the visual flow from front to back.

### 9.3.6 Final Model Process

The final model was made from CAD and used CNC machining to create moulds and rapid prototyping for detail parts. The top shell, glass and rear section moulds were machined from laminated medium-density fibreboard (MDF). The top shell and rear section were constructed using fibreglass while the glass and its interior structure and pillars were vacuum formed using Polyethylene Terephthalate (PETG) plastic. The mould for the interior rear seats was machined from expanded cell polystyrene and the finished product constructed from fibreglass. The lower side panel was machined as a one-piece underbody tray from laminated MDF and sealed with epoxy resin. The main body was machined from expanded cell polystyrene and was sealed with epoxy resin. The wheel and tyre assemblies were machined from laminated MDF and tread was then created using a lathe before being sealed with epoxy resin. The front and rear lights, logos, bonnet seat, wheel inserts, front grilles, exhaust, steering column, steering wheel and drivers seat were all constructed using rapid prototyping. The front section of both front guards was constructed by hand using carbon fibre, as this piece was too complex for a mould to be machined



Figure 092: Hyundai Exodus Final modelling process.



Figure D93: Hyundai Exodus Final modelling process.



Figure 094: Hyundai Exodus Final modelling process.

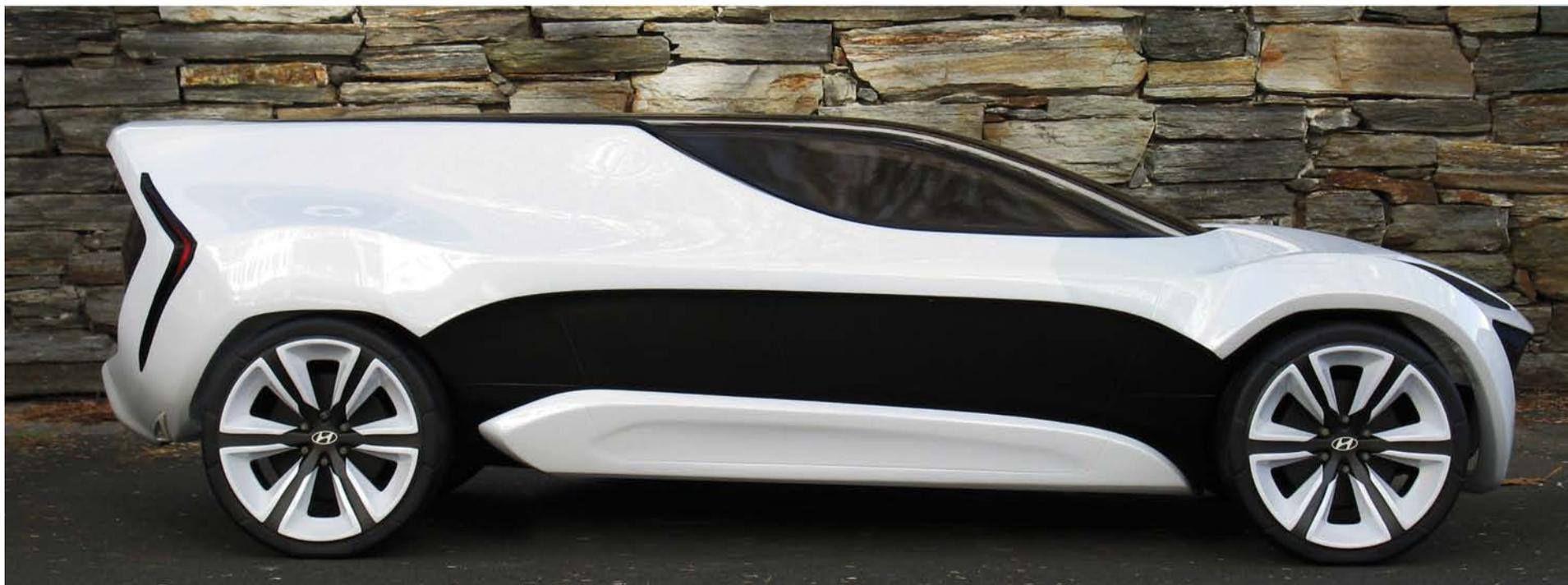


Figure 095: Hyundai Exodus Final model.

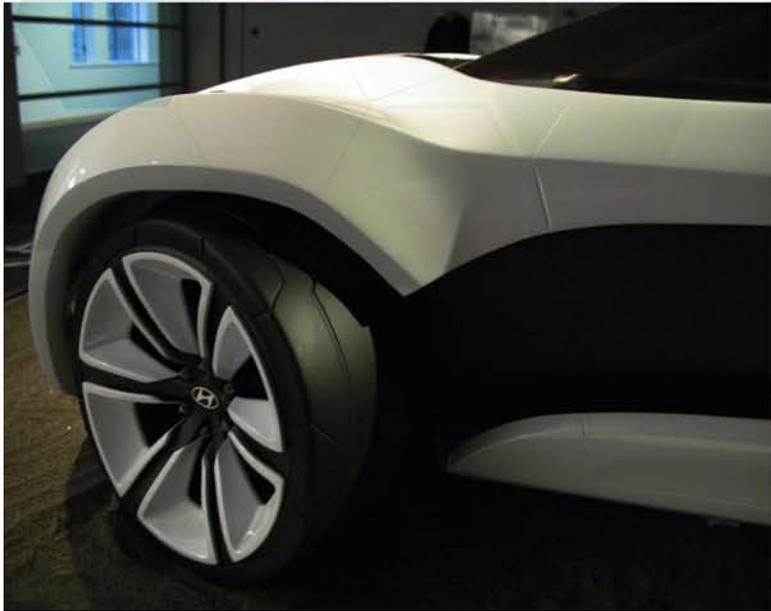


Figure 096: Hyundai Exodus Final model.



Figure 097: Hyundai Exodus Final model.



Figure 098: Hyundai Exodius Final model.



Figure 099: Hyundai Exodus Final model.



Figure 100: Hyundai Exodus Final model.

## 10.0 Conclusion

The main aim for this study was to develop a visual identity for Hyundai Motor Company through design research to aid with strengthening the company as a visually focused brand. To achieve a strong visual identity it was important to begin to develop the three modes of visual identity, recognition, comprehension and association.

Early in the research process, it was established that a niche market would be an ideal target market for the development of a conceptual visual identity for Hyundai. The chosen niche market was that of surfers, which also opens the entire extreme sports market for future development of different models utilising this visual identity. The researcher's own physical location in New Zealand was also considered positive because of the strong surfing culture in New Zealand and the way in which he could personally associate and interact with the target market and their concerns.

### 10.1 Recognition

Exodus can be characterized through a number of visual cues. The vehicle's exterior portrays the strong elements of ruggedness and freedom, characteristics inspired by the Dune Buggy. The design is adrenaline charged, adding to the sense of excitement and freedom, while the proportion and stance is wide to give a feeling of stability, due to balance being key to the sport of surfing. The vehicle's cocooning interior conveys the feeling of wave immersion to both the driver and passengers,.

### 10.2 Comprehension

Exodus has many features that serve to address both the aesthetic appeal and function needed for the surfer. The bonnet seat allows surfers to sit comfortably while watching waves and other surfers. The rear bumper is designed as a wetsuit storage unit, as well as a seat allowing surfers to change easily whilst sitting down. Exodus gives the surfer the option to store surfboards either inside and/or outside the vehicle. The interior layout of the car centers the driver at the front with seats for two passengers behind them on either side. The space behind the backseat functions as a sleep area while waiting for the right wave at dawn.

### 10.3 Association

As this is a concept model, the associative qualities of the design cannot be accurately quantified, this aspect of visual identity is more reliant on historic elements of the brand and the form language. Whether or not it could be looked into during further development, will depend on matching it with the true imaging of Hyundai and to develop on a flow of designs based on the Exodus series, as done by Toyota with the Lexus series.

#### 10.4 Further Development and Evaluation

Further development and refinement should be done with the proportion and more specifically the length of the vehicle. The character line could also be better refined as it appears too weak when compared with the visual elements of the front and rear. The surface treatment of the bonnet seat needs to be reconsidered, as it does not flow well with the overall form language. In conclusion, it answers all of the research aims and brings the main philosophy of this study to the fore to certain extents whilst leaving grounds for further development.

Yet, overall the development of this study satisfies the brief of creating a new potential visual product identity for Hyundai Motor Company. From its first concept sketch to the final design shares similarities in form language, but it's been developed with many different key words and theme. It leaves some areas for refinement and further development such as in the front wheel arch, but in its entirety, the design has consistency and clear theme. Whilst future technical and social advances will impact Hyundai's brand this research makes clear the importance of design development in their progression. Coupled with strong market goals and a keen understanding of their customer, Hyundai, has the opportunity to foster the kind of product perception that may transfer it into a place of trust and admiration in the minds of consumers.

## Appendix 1 - Interview with Hyundai Senior designer (M.N, Kim personal communication, July 16, 2007).

Can you tell me overall view about Hyundai?

Hyundai Motors is a Global brand, which means we are expanding our consumers to worldwide. We are continuing to develop our markets in China as well as India, which is one of the new potential markets. We developed some good reputation in China, which Hyundai motors will benefit to sell a large quantity of different line-ups to these potential consumers by using Hyundai brand power. Currently Toyota have exported calmly into China market and made a success on their sales, therefore it affected the value of Hyundai brand power. Despite this, we are keeping planning to develop our market into China as well as Russia and East Europe to spread as a Global Brand.

When we want to discuss about K – Factor or Brand identity, we have to design prominent cars to develop our Brand perception. This means that we should be designing car confident and have a good experience with Hyundai users instead of target into new market. To consider developing the issues of K – Factor or Visual Identity, it would be better to target senior market where we have high reputation of perception. If we develop this issue in the area where brand reputation is low then it can bring us a risk in developing our marketing strategy. This is a reason that we are really careful to build our own Brand Identity. We are very careful about this process and planning to develop it in a long term.

There is a risk of designing a Brand Identity for Asian market, because in Asia there are many different areas. We will have to divide our car line – ups to meet different areas for their requirement. Therefore it will be hard to keep consistency on our design for this user requirement.

It would be better to design a Brand Identity of consistency for the Global market, as each country have there own characters. Hence our goal is to develop consistency, creativity, diversity in our brand for the Global market. Recently we have created visual consistency in some parts in our form language, but when compared to Mercedes Benz or BMW, our consistency is not as high as what they have created, because of their higher brand power. We do have more model line – ups than those higher brands. We are anguish from two different facts, which is diversity or consistency at this stage.

What is Automotive design Trend?

The design forms were very organic and masculine, until the EDGE designs have set the trend in late 90's. The EDGE design had opposite characters to the previous one, therefore this new EDGE design was able to set the trend. The EDGE design is still used in Cadillac brand. Recently their sensitive and emotional design has been setting the new trend. It means that the cars are becoming emotional attribute to the consumer's rather than functional attribute. The latest designs try to have images of distinguished characters, for example, the surfaces of cars capture emotionality than faculty of machine.

Lately Audi had a peak period of geometry design, and they have had successes in developing such design, until its limitation. At this peak time, Audi's competitor, BMW have brought a main stream of new trend "Flaming Surface", which is clearly opposite character to "Geometry" design, and also Mercedes Benz used to have boxy style body with dignity, but today they have changed to sporty, dynamic, and fluid.

Hyundai motors is part of main stream brand in Korea, which gained 50% of market share, and 4% in U.S.A. Hyundai is keep targeting to become a main stream in Global market, therefore we can not neglect consequences of the trend and need to keep companion with other brands. Hyundai motors have actually narrowed gaps in trend, but when we can say, "that's the Trend", which resulted overdue period of development. A hard fact is that, Hyundai motor's brand image become such as follow examples of other Brands, but we are narrowing that gap and keep trying to find our own character. Currently the design trend is fluid and sleek, and Hyundai cars are embodied. It is our target to find out the next trend.

What is the difference between European and Korean design?

The Mercedes Benz has great authority with their brand power, and today their luxury image generate with no age limits, because their unexpected change of trend and target market allowed to change in design form language. Come to an end their body shapes reflect from their iconic grill. Its brand power allows the change of forms, for example, the lamps and the edged body form has been changed to softer, rounder, and sharper adequate to the refined iconic grill.

The BMW brand is a similar case to the Mercedes Benz or even made intense change to their body form, but remains consistent in graphic design. For example, it is irrelative to the consumers when BMW's form language shifts to the diametrically opposed brand like Audi or Mercedes Benz. The conservative or either innovative form language comes to an agreement to the market, because of the brand power.

There is a reason that Hyundai motors cannot build Visual Identity, because our brand power is not as strong as those luxury brand and we have more model line – ups. It can bring a high risk if we move towards developing identity with much line – ups. Hyundai motors give prominence to different car category, which means each car has its role to represent its own character. Therefore it is hard for us to create identity, because we have to follow the trend and consider each car's characteristics at the same time.

Does Hyundai Motors have philosophy in design identity?

Hyundai motors have a variety of line – ups, which means we concentrated on creativity on the design rather than creating an identity. At this stage we still have not found an object in order to articulate philosophy. We are in progress of finding our philosophy on the premise in research. It is difficult to create a philosophy when there is no consistency in our designs.

What is the trend in Korea?

In personal opinion, in Korea many imported cars have been increased, which means that Korean consumers prefer differentiation rather than consistency. This is part of the reason that it is hard for us to create our visual identity. For an example some of TG Grandeur users revolt to Sonata users, because Grandeur and Sonata's consistent form language makes those consumers feel they are up to date with the trend. In Europe or America design identity gives reliability to the brand, but consumers in Korea prefer differentiated models. Korean consumers purchase imported cars or high-end brand cars, because they are expensive, to show off, and it represents the status of symbol. Today BMW has shown their success in innovative design when compared to Mercedes Benz. The consumers are looking for innovative designs, and something different.

Can you explain about K – Factor?

The Korean Factor is what we named for K – Factor, but we are really not happy using this word, because it seems like we have imitated from J – Factor. At this stage we are using K – Factor temporarily until we find a right key word.

As a result comes it seems to have limitation of following someone's process. We do believe that we have our own cultural identity. It is a very hard procedure when attempting to apply cultural identities into a car form. It also has to look beautiful at the same time. All of these features have to meet at the right timing, so the citizens of the world may start to understand our philosophy.

Compared to Japan, our cultural identity is very complicated. The Japanese elements are simple, sharp and distinct. Japanese are already carved into American's culture and they don't feel opposed to Japanese, for example, the Japanese have created many virtual computer games so people can have experience in the game. Also, Nissan motors especially have applied their cultural aspects into their design; they have followed Japanese swords into some of their form language. But when people say "that's Korean car, it's got philosophy of Korean culture in it", then it gives a negative value to the design, even if we come up with marketing strategy of 'Art of Asia' to represent mystery of Asia. This result can be negative to our Brand, because it is very hard to build the concept Korean culture within the global market.

There is a potential in Korean Factor, but it is very hard to find it, because our cultural awareness is very complex to apply into car design. In history Korean's lifestyle are very different to today's lifestyle, and new generations are moving towards to technology very fast, and we reflect into trend very fast, but on the other hand people believes that we have high level of cultures which we can make an impression. It is very hard to find an object that can apply into car design. It is not simple as just influenced by lines of Korea, lines of ceramics, and lines of Koreans socks, because we have long history and philosophy in our culture, and we have fast moving towards a trend and we have an aim for the future trend. These three factors are important to research and have to considerate how much it will benefit in the future. The K – factor research is very valuable but it takes time to build this philosophy, because we don't know our perception in a citizen of the world and when we make Korean product we don't know how will reflect form those people.

## Appendix 2 - Appendix 2 - Comments based on Exodus from Hyundai Senior Designer (E - Mail)

September 20 2008 Tuesday 12:57:50 am

It's been awhile since we talked.

News about the progress of the project is good.

I can really feel that you are working very hard.

What is especially good is the clear direction of the design and the over all proportions.

Please continue to work on the model as we agreed and keep sending sketches and renderings

October 23 2008 Thursday 6:31:120 am

The work that you have produced on your own is exceptional.

It really complements the over all profile and the distinctive and bold surface treatment.

If I can make one suggestion, although I really like the dramatic nature of the initial designs, I feel that they are slightly lacking beauty in the moulding and a proportionate finish. It would be great if you had the time to try again from a new perspective.

You mentioned that you were planning to go into your final model once your 3D was finished, however as a designer you require the courage and wisdom to deal with difficult decision-making and challenges.

On the other hand, this is my personal opinion and it is up to you as the designer to make the final decision.

October 30. 2008 Thursday 9:21:03 am

I have briefly described the image of the front part and am not sure how to be more specific.

I too was like this but designers have a tendency to become very involved with their design and be very satisfied with current results. However, it is important to not be embarrassed when looking back on your past projects.

Please change the proportional research that potentially makes the front part look wide. When looking from the front, because the wheel arch opening is coming too far in the O/L direction, the tyres are exposed. This could be seen as a dynamic design experiment, but on the other hand it may be more effective to highlight the solid image and wide proportions by taking things in the opposite direction. Expanding the position of the lamps outward and creating a simple quadrangular proportion may emphasise speed and distinctive features of the moulding.

Too much detail in the review can cause a designer to change their intention so I think it best to stop here. I encourage you to continually be self-editing so that you are able to create a design with a high degree of completeness. Do not forget that from a personal standpoint, other than the front part, I feel that it is an exceptional design.

## Appendix 3 - Surfer Interview Questionnaires

### Surfing

Tell me about surfing; tell me what you like about surfing?  
Individual sports, out with nature, Freedom, Release stress

Who do you consider a best surfer?

Now tell me about your favourite brands of surfing/snowboarding product.

Surfboard  
Apparels

How often do you surf?

### Lifestyle

Now can you tell me about your lifestyle outside surfing?

What kind of music do you usually listen to?

What kind of car do you drive?

### Cars

What do you like about your car?

If he/she likes the car; what else would you like to have in a car to help you surfing?

If he/she hates the car; what sort of problems do you have with your car?  
How much gear do you normally carry in your car?

### Demographics

What is your age?

Gender:

Where are you from?

Are you married?

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