



# CREATING A BY-PRODUCT OF THE PRODUCT YOU CAN BUY

- THREE-DIMENSIONAL DESIGN FOR RETAIL CONCEPTS OF THE COMPANY ADIDAS -



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INSTITUTE OF FINE ARTS AND CULTURAL STUDIES:  
TEXTILE · ART · DESIGN

## MASTER THESIS

- THREE-DIMENSIONAL DESIGN FOR RETAIL CONCEPTS OF THE COMPANY ADIDAS -

CREATING A BY-PRODUCT OF THE PRODUCT YOU CAN BUY

BY  
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FOR OBTAINING THE ACADEMIC DEGREE: MA (MASTER OF ARTS)

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DATE OF THE APPROBATION: LINZ, 22.05.2017



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IN THE WRITING OF THIS THESIS.

DATE AND SIGNATURE OF THE STUDENT:

.....

ALISSA MAIKE SAMMET



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THIS MA THESIS CONTAINS CONFIDENTIAL  
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# ACKNOWLEDGEMENT

I WOULD LIKE TO THANK SEVERAL PEOPLE FOR MAKING THIS THESIS POSSIBLE. FIRST OF ALL, I WOULD LIKE TO THANK MY PROFESSOR UNIV.-PROF.MAG.ART. GILBERT BRETTERBAUER FOR TRUSTING ME IN DOING MY MASTER THESIS IN COOPERATION WITH THE COMPANY ADIDAS. AT ADIDAS, I WOULD LIKE TO THANK MY SUPERVISOR VICTORIA SCHNEYER FOR HER TREMENDOUS HELP IN ANY SITUATION. THANK YOU TO SIGRID BREWKA-STEEVES AND KATE MAHER FOR ALL OF YOUR INPUT. THANK YOU FOR GIVING ME THE FREEDOM TO SEARCH INDEPENDENTLY FOR THE RIGHT MATERIALS INSIDE THE COMPANY.

ALSO, I AM VERY GRATEFUL FOR THE SUPPORT OF THE WHOLE RETAIL-CONCEPT-CREATION TEAM AND CTOC. I HAVE ALWAYS RECEIVED TREMENDOUS SUPPORT AND CARING ASSISTANCE IN ALL OF MY QUESTIONS. I WOULD ALSO LIKE TO THANK SEVERAL OTHER COWORKERS AT DIFFERENT DEPARTMENTS OF ADIDAS:

AUSTIN DAVIDSEN (LEATHER WASTE), CHRISTINA TRAUTMANN (RUBBER WASTE), JÜRGEN SCHACHER AND CHLOE PHENG (KNITTING WASTE) AND KATRIN STENZEL.

THEY HELPED ME IN THE ACQUISITION OF THE ORIGINAL MATERIALS FOR THIS PROJECT.

ALISSA SAMMET

# ABSTRACT

THE FOCUS OF THE THEORETIC PART OF MY MASTER THESIS LIES ON THE DEVELOPMENT OF THREE DIMENSIONAL DESIGN ELEMENTS FOR STORES AT ADIDAS. THE STARTING POINT WAS THE RECYCLING OF HOTSPOT SHOE PRODUCTION WASTE. THE GOAL AND CREATIVE GUIDELINE OF THIS WORK IS TO TRANSFORM THE EXISTING. THE RADICAL DESIGN AND THE FACT THAT IT IS MADE OUT OF PRODUCTION WASTE MUST BE VISIBLE. THE ORIGINAL USE OF THE ADIDAS PRODUCT SHOULD BE APPARENT SO THAT THE CUSTOMER RECOGNIZES ADIDAS' INNOVATIVE SUSTAINABILITY EFFORT AT FIRST SIGHT.

I WILL SHOW WITH MY DESIGNED PROTOTYPES HOW DIFFERENT FORMS OF WASTE MATERIAL CAN BE PUT IN A NEW CONTEXT IN INTERIOR DESIGN.





-RECYCLING adidas 'OWN MANUFACTURING WASTE FOR INTERIOR-

The goal and creative guideline of this work is to transform the existing.

The radical design and the fact that is made out of production waste must be visible.

Studies show that the most environmental pollution is made during the production in the factories. That is why the original use of the adidas product should be kept visible so that the customer recognizes adidas' innovative sustainability effort at first sight.

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# 1. THE COMPANY ADIDAS

ON AUGUST THE 18TH IN 1949, 49 YEAR-OLD ADI DASSLER (1900-1978) FOUNDED THE „ADI DASSLER ADIDAS SPORTS SHOE COMPANY“ AND BASED HIS HEADQUARTER IN THE CITY OF HERZOGENAURACH. ON THAT DAY, ADI DASSLER ALSO PATENTED THE FAMOUS 3-STRIPES LOGO. HE STARTED OUT BY EMPLOYING 49 PEOPLE.

TODAY, ADIDAS IS WORTH AN ESTIMATED 5.26 BILLION US DOLLARS. IT IS ONE OF THE TOP TEN MOST SUSTAINABLE COMPANIES IN THE GERMAN SHARE INDEX AND RANKS SECOND IN THE GLOBAL SPORTS ATTIRE INDUSTRY BEHIND NIKE. IN 2007, ADIDAS STARTED A MULTI BRAND STRATEGY BY BUYING UP REEBOK. BY DOING SO, ADIDAS IS ABLE TO OFFER A WIDER AND MORE DIVERSE NUMBER OF PRODUCTS. THE COMPANY AIMS TO BECOME THE WORLD'S MOST SUCCESSFUL SPORTS ATTIRE COMPANY.

BY FOLLOWING THE GUIDING PRINCIPLE „WE CAN CHANGE LIVES WITH SPORTS“, ADIDAS CURRENTLY HAS REACHED ITS PEAK OF SUCCESS. THE COMPANY PRODUCES ANNUALLY 778,000,000 MILLIONS OF PRODUCTS, SUCH AS TEXTILES, SHOES AND SPORTS ACCESSORIES. SOLELY THE SHOE PRODUCTION HAS GONE UP TO 360,000,000 MILLIONS PAIRS PER YEAR. THE NUMBER OF EMPLOYEES HAS RISEN TO 60,617 IN 180 DIFFERENT COUNTRIES. THE COMPANY'S REVENUE GREW BY 18% IN 2016 (ADJUSTED BY CURRENCY EFFECTS). THE EURO REVENUE REACHED A RECORD HIGH 19.291 BILLIONS, WITH AN INCREASE OF 14% (2015: 16.915 BILLION EUROS).

## 1.1 MISSION : SUSTAINABILITY

SUSTAINABLE BUSINESS MEANS TO FIND A SOUND BALANCE BETWEEN SHAREHOLDER EXPECTATIONS, WELFARE AND A GOOD WORKING ENVIRONMENT. THE STEADY INCREASE OF THE WORLD'S POPULATION LEADS TO MORE TRASH AND WILL CONTINUE TO IMPACT OUR CLIMATE NEGATIVELY. THUS, THE LIVING SPACE OF OUR WORLD AND IT'S "SPORTS' SPACE" DECREASES. THEREFORE, ADIDAS WANTS TO MAKE THE CONSUMERS AWARE OF THE IMPORTANCE OF SUSTAINABILITY AND TRIES TO FIND NEW WAYS IN ORDER TO GIVE THE PEOPLE AN UNDERSTANDING OF ITS IMPACT ON THE WORLD. THE POWER FOR CHANGE LIES IN THE HANDS OF THE CONSUMER – GIVEN SHE/HE HAS A CHOICE – AND THE POWER TO SHAPE THIS NEW CONSUMER MINDSET LIES IN THE HANDS OF THE CREATIVE INDUSTRIES.

### 1.1.1 ADIDAS SUSTAINABILITY STRATEGIC PRIORITIES

ADIDAS TOOK SUSTAINABLE MEASURES BY CUTTING ON WATER AND ENERGY COSTS. ADDITIONALLY, THE COMPANY USES INNOVATIVE MATERIAL SOLUTIONS, SUCH AS SUSTAINABLE COTTON, SUSTAINABLE LEATHER, BIO-BASED PLASTIC, BAMBOO FIBER AND BETTER RUBBER. THE COMPANY ALSO TRIES TO FIGHT THE OCEANS' POLLUTION BY TAKING PART IN THE PROJECT „PARLEY FOR THE OCEAN“ (I WILL GO IN-DEPTH ABOUT THIS PROJECT LATER IN THIS THESIS). ADIDAS IS DRIVING TOWARDS CLOSED-LOOP SOLUTIONS.

IT TRIES TO USE LESS PLASTIC AND SYNTHETIC MATERIALS, YET MORE NATURAL CHEMICALS AND COMPOSTABLE PACKAGING IN ORDER TO REACH ITS GOAL: “INNOVATE, SURVIVE”

THE COMPANY HAS A LONG TRACK RECORD IN SUSTAINABILITY AND TRIES TO CONSTANTLY IMPROVE ITS SUSTAINABLE PERFORMANCE WHILE ACTING UPON THEIR LEADERSHIP ROLE AND LISTENING TO THE EXPECTATIONS OF THE CUSTOMERS AND THE STAKEHOLDERS. ONE EXTENDED SUSTAINABILITY STRATEGY IS CALLED: “SPORT NEEDS A SPACE” WITH THIS STRATEGY, ADIDAS WANTS TO TRANSLATE ITS OVERALL SUSTAINABLE EFFORTS INTO TANGIBLE GOALS, WHICH HAVE A DIRECT IMPACT ON THE WORLD. ADIDAS HAS DEVELOPED A HOLISTIC STRATEGY, WHICH TACKLES THE CHALLENGES, THAT ENDANGER THE SPACES OF SPORT AND SIMULTANEOUSLY THE PLANET AND PEOPLE. THE SUSTAINABILITY STRATEGY „SPORT NEEDS A SPACE“ IDENTIFIES SIX STRATEGIC PRIORITIES IN ORDER TO ADDRESS THE ISSUES AND CHALLENGES OF THE SPACES WHERE THE COMPANY'S PRODUCTS ARE MADE, SOLD AND PLAYED: “WE VALUE WATER, WE INNOVATE MATERIALS AND PROCESSES, WE CONSERVE ENERGY, WE EMPOWER PEOPLE, WE IMPROVE HEALTH, WE INSPIRE ACTION”.

FOLLOWING THE ENTIRE LIFECYCLE OF SPORT, THE HOLISTIC SUSTAINABLE STRATEGY SUPPORTS THE COMPANY IN PRODUCING RESPONSIBLY ACROSS THE ENTIRE SUPPLY CHAIN, WITH TANGIBLE AND MEASURABLE GOALS.

GREEN COMPANY TARGETS BY 2020:

- 20% WATER SAVINGS AT THE STRATEGIC SUPPLIERS
- 50% WATER SAVINGS AT THE APPAREL MATERIAL SUPPLIERS
- 35 % WATER SAVINGS PER EMPLOYEE AT THEIR OWN WORK

ADIDAS WILL FURTHER EXPAND THE USE OF WATERLESS TECHNOLOGIES FOR ITS PRODUCTS AND CONTINUE TO DEVELOP PROGRAMS FOCUSED ON PROVIDING ACCESS TO CLEAN WATER IN THE COMMUNITIES THE COMPANY OPERATES IN.

- 20% ENERGY SAVINGS AT THE STRATEGIC SUPPLIERS
- 3% ABSOLUTE ANNUAL REDUCTION AT THE COMPANY'S OWN SITES.
- FURTHER EXPANSION OF ISO 14001
- REDUCE THE ENVIRONMENTAL FOOTPRINT OF ITS CONSUMER EVENTS

## 1.2. SUSTAINABILITY PROBLEMS

ADIDAS IS A PART OF OUR SOCIETY AND, THEREFORE, HAS THE POWER TO INFLUENCE AND CHANGE IT IN A POSITIVE WAY. THE COMPANY IS ONE OF THE MOST SUSTAINABLE COMPANIES OF THE DAX, HOWEVER, BY BEING SUCH A LARGE COMPANY AND SELLING AROUND 360,000,000 PAIRS OF SHOES PER YEAR, ADIDAS CONTINUALLY AMASSES A VERY LARGE AMOUNT OF TRASH.

ADIDAS USES PRODUCT LIFE CYCLE ASSESSMENT (LCA), IN ORDER TO MEASURE THE ENVIRONMENTAL IMPACT OF A FINISHED OR INTERMEDIATE PRODUCT THROUGHOUT ITS LIFE CYCLE. THE ENVIRONMENTAL IMPACT ANALYSIS INCLUDES GREENHOUSE GAS (GHG) EMISSIONS, RESOURCE DEPLETION, ENERGY USE, AND WATER USE.

THE PURPOSE OF THE EVALUATION IS TO IDENTIFY HOTSPOTS AND CREATE CONCEPTS IN ORDER TO IMPROVE THE ENVIRONMENTAL PERFORMANCE AND FIND ALTERNATIVE DESIGN CONCEPTS. AT EACH STAGE IN THE LIFE CYCLE OF A PRODUCT, THE CHEMICALS, WASTE, ENERGY, CO<sub>2</sub> AND WATER IS EVALUATED.

„THROUGH LCA, WE HAVE LEARNED THAT THE LARGEST ENVIRONMENTAL IMPACTS FOR APPAREL COME FROM THE MATERIALS WE USE. FOR FOOTWEAR, THE MAIN IMPACTS COME FROM THE MANUFACTURING STAGE (I.E., HOW WE PROCESS THE MATERIALS INTO FOOTWEAR COMPONENTS).“

(INTERNAL ADIDAS DOCUMENTS)



GENERALLY, ADIDAS TRIES TO MAKE ECO-BALANCES FOR DIFFERENT PRODUCTS WITH A LIFE CYCLE ASSESSMENT. THAT IS HOW THEY TRY TO FIND THE POLLUTION HOTSPOTS OF THEIR PRODUCTION CENTERS. HOWEVER, THE PROBLEM IN THIS CASE IS THAT IT LEADS TO IMPRECISE CALCULATIONS. IF ONE WANTS TO MAKE A CALCULATION FOR A PRODUCT, ONE HAS TO ADD IN THE WHOLE ECO-BALANCE OF THE SITUATION OF THE PRODUCTION CENTER.

(INTERNAL ADIDAS DOCUMENTS)

THAT IS WHY THE SAME PRODUCTS HAVE DIFFERENT NUMBERS OF ENERGY CONSUMPTION DEPENDING ON THE LOCATION OF THE PRODUCTION CENTER AND ITS SOURCES FOR ENERGY (F.E. COAL VERSUS SOLAR ENERGY).

IN ORDER TO HAVE SUCCESSFUL AND SUSTAINABLE PROGRESS, THE THREE-PILLAR-MODEL OF SUSTAINABILITY WAS CREATED (THE CREATOR IS UNKNOWN). IT IS BASED ON THE PREMISE THAT SUSTAINABLE PROGRESS ONLY SUCCEEDS IF IT SIMULTANEOUSLY COMBINES AN EQUAL IMPLEMENTATION OF ENVIRONMENTAL, ECONOMICAL AND SOCIAL GOALS. ONLY IN THAT WAY, ECOLOGICAL, ECONOMICAL AND SOCIAL PRODUCTIVITY OF A SOCIETY CAN BE SAVED AND IMPROVED. THE THREE ASPECTS CORRELATE AND DEPEND ON ONE ANOTHER.

### 1.2.1. ECONOMIC IMPACT

THE SHORTAGE OF RESOURCES IS A REAL PROBLEM FOR THE ECONOMY, THUS MAKING SUSTAINABILITY A MORE AND MORE IMPORTANT TOPIC FOR ADIDAS. THE COMPANY VIEWS ITS RESPONSIBILITY FOR ITS CONSUMERS AND FUTURE CONSUMERS AS A HIGH PRIORITY. THE CONSUMERS ALSO IDENTIFY WITH THE IMPORTANCE OF SUSTAINABILITY.

„82% OF CONSUMERS FIND GLOBAL CLIMATE CHANGE EXTREMELY OR VERY SERIOUS.“

„40% OF CONSUMERS GLOBALLY SAY SUSTAINABLE PRODUCTS ARE OF HIGHER QUALITY THAN CONVENTIONAL PRODUCTS.“

(INTERNAL ADIDAS DOCUMENTS)

THEREFORE, SUSTAINABLE MEASURES LEAD TO A POSITIVE BRAND IMAGE OF THE COMPANY'S PHILOSOPHY, WHICH BINDS THE CONSUMER TO THE COMPANY FOR A LONG-RANGING RELATIONSHIP. IT ALSO LEADS TO A MORE ECONOMICAL DEALING WITH RESOURCES, THUS, MINIMIZING THE AMOUNT OF TRASH PRODUCED AND REDUCING THE USAGE AND COSTS OF ENERGY AND WATER.

### 1.2.2. ECOLOGICAL IMPACT

THE POSITIVE EFFECTS OF SUSTAINABILITY NOT ONLY AFFECT THE CONSUMER, IT IMPROVES THE WORLDWIDE ECOLOGICAL SYSTEM AND THE POPULATION. THE COMPANY'S GOAL IS TO SECURE THE PLANET'S FUTURE AND TO INDIRECTLY LESSEN THE LOSSES OF FUTURE GENERATIONS.

"FOR SPORT TO CHANGE LIVES, IT NEEDS SPACE TO EXIST, A FIELD TO PLAY ON, AN OCEAN TO SURF OR A MOUNTAIN TO CLIMB - AND THESE SPACES ARE INCREASINGLY ENDANGERED DUE TO MAN-MADE ISSUES INCLUDING HUMAN RIGHTS VIOLATIONS, POLLUTION, GROWING ENERGY CONSUMPTION AND WASTE."

"WE ARE THE GUARDIANS OF THE SPACES OF SPORT."

(ADIDAS COMMERCIALS 2016/2017)

THE COMPANY VIEWS ITSELF RESPONSIBLE FOR THE PRESERVATION OF A HEALTHY ECOLOGICAL SYSTEM. NON-RENEWABLE RESOURCES, DEPLETION OF THE NATURE, AND CLIMATE CHANGE IMPACT OUR WORLD TO AN EXTENT, THAT WITHOUT MEASURES AGAINST THESE PROBLEMS, THE ATHLETES WILL NOT BE ABLE TO PURSUE THEIR SPORTS. THUS, IN ORDER TO BE ABLE TO SUCCEED IN THE FUTURE, ADIDAS WANTS TO PROTECT THE ENVIRONMENT FOR ITS ATHLETES.

### 1.2.3. IMPACT ON SOCIETY

SPORT IS THE KEY COMPONENT TO ONE'S HEALTH AND HAPPINESS. ADIDAS AIMS TO ENABLE PEOPLE AROUND THE WORLD TO PARTICIPATE IN SPORTS, WHILE EDUCATING THEM IN PHYSICAL AND MENTAL HEALTH, FITNESS AND NUTRITION. THIS WILL ULTIMATELY ALLOW THEM TO LEAD A HEALTHIER AND MORE FULFILLED LIFESTYLE. THUS, THEIR OVERALL CONFIDENCE AND WELL-BEING WILL BE IMPROVED. THIS IS SUPPORTED BY RESEARCH THE COMPANY CONDUCTED: IT SHOWS THAT ADIDAS CONSUMERS BELIEVE THAT SPORT MAKES THEM HEALTHY AND HAPPY, THAT IT CREATES VALUE AND EMPOWERS PEOPLE. 92% EVEN SAY THAT SPORT HAS A POSITIVE IMPACT ON TODAY'S SOCIETY.

(INTERNAL ADIDAS DOCUMENTS 2017)

ADIDAS WILL CONTINUE TO FOCUS ON:

"REWARDING OUR EMPLOYEES' COMMITMENT AND CONTRIBUTIONS TO OUR COMPANY'S PURPOSE, STRATEGY

AND SUCCESS. ENCOURAGING AND SUPPORTING EMPLOYEE VOLUNTEERING – CREATING AGENTS OF CHANGE IN THE COMMUNITIES WE WORK, LIVE AND OPERATE IN.

ENGAGING WITH CREATORS AND INFLUENCERS AND DRIVING INNOVATIVE COLLABORATIONS.

INSPIRING CONSUMERS, KEY PARTNERS, BRAND ASSETS AND OTHERS TO JOIN US ON OUR JOURNEY.

TEAMING UP WITH OUR ATHLETES WHO WILL ACT AS ROLE MODELS FOR YOUNG CREATORS,

SHARING EXPERIENCES AND SHOWING THAT SPORT IS ABOUT PASSION, DETERMINATION, TEAMWORK,

HELPING OTHERS AND BEING ACTIVE.“

BY TAKING POSITIVE SUSTAINABLE MEASURES AS A SUCCESSFUL COMPANY, OTHERS WILL TRY TO ADAPT ADIDAS’ QUEST FOR SUSTAINABILITY FOR THEIR OWN PRODUCTIONS.

(INTERNAL COMPANY TARGETS BY 2020 FROM ADIDAS)

### 1.3. SUSTAINABLE MEASURES FOR THE PUBLIC

#### 1.3.1. PARLEY FOR THE OCEAN

“PARLEY FOR THE OCEANS ADDRESSES MAJOR THREATS TOWARDS OUR OCEANS, THE MOST IMPORTANT ECOSYSTEM OF OUR PLANET.

ARTISTS, MUSICIANS, ACTORS, FILMMAKERS, FASHION DESIGNERS, JOURNALISTS, ARCHITECTS, PRODUCT INVENTORS, AND SCIENTISTS HAVE THE TOOLS TO MOLD THE REALITY WE LIVE IN AND TO DEVELOP ALTERNATIVE BUSINESS MODELS AND ECOLOGICALLY SENSIBLE PRODUCTS TO GIVE US EARTHLINGS AN ALTERNATIVE CHOICE, AN EVERYDAY OPTION TO CHANGE SOMETHING.

PARLEY HAS BEEN CREATED TO ACCELERATE A PROCESS OF CHANGE THAT IS ALREADY IN PROGRESS.

“NO OTHER BIG MOVEMENT IN THE HISTORY OF HUMANKIND HAS DEVELOPED FASTER THAN THE ENVIRONMENTAL CAUSE. WE WANT TO MAKE SURE WE ARE FAST ENOUGH TO MEET THE ULTIMATE DEADLINE AND TURN THE SHIP AROUND BEFORE WE LOSE A TREASURE WE HAVE ONLY JUST STARTED TO EXPLORE AND STILL DON’T FULLY UNDERSTAND: THE FANTASTIC BLUE UNIVERSE BENEATH US – THE OCEANS .” PARLEY. THE ADIDAS X PARLEY WAS THE FIRST SHOE MADE OUT OF PARLEY OCEAN PLASTIC.



ADIDAS USED FISHER NETS, WHICH WERE USED FOR ILLEGAL FISHING IN THE ATLANTIC OCEAN BEFORE. THE ORGANIZATION SEA SHEPHERD HELPED ADIDAS IN DOING SO. ALSO, FC BAYERN MUNICH TRIED TO SEND A STATEMENT BY BECOMING THE FIRST SOCCER TEAM TO USE JERSEYS MADE OUT OF PARLEY OCEAN PLASTIC.

### 1.3.2. TAKE BACK PROGRAMME: -FROM THREAT INTO THREAD-

THE INTENTION OF THIS PROGRAMME IS TO HELP IN MINIMIZING THE OVERALL WASTE OF FASHION TEXTILES AND BRING AWARENESS TO THE CONSUMER. THE "TAKE BACK PROGRAMME" AIMS TO TURN OLD CLOTHES AND SNEAKERS INTO FUTURE SPORTSWEAR. BY DONATING OLD CLOTHES AND SHOES, THE CUSTOMER MAKES AN INSTANT CONTRIBUTION TO THE ENVIRONMENT AND THE SPORTS INDUSTRY.

"OUR TAKE-BACK PROGRAMME IS GETTING ADIDAS A BIG STEP CLOSER IN BECOMING A CLOSED-LOOP BUSINESS, WHEREBY WE CREATE MORE WITH LESS. IT ENABLES OUR CONSUMERS TO BRING BACK THEIR UNWANTED FOOTWEAR AND APPAREL FROM ANY BRAND AND IN ANY CONDITION AND WE WILL ENSURE THAT THE PRODUCTS WILL HAVE A SECOND LIFE EITHER THROUGH REUSE OR BEING RECYCLED.

ADIDAS FIRST LAUNCHED THE PROGRAMME AT THE LONDON 2012 OLYMPICS AS AN EVENT ACTIVATION. "SO FAR, WE HAVE GIVEN A TOTAL OF 8 SHIPPING CONTAINERS WORTH OF SUPPOSEDLY OLD FOOTWEAR AND APPAREL A SECOND LIFE THROUGH THIS PROGRAMME. THE TAKE-BACK PROGRAMME DOES NOT STAND ALONE. THE MATERIALS, WHICH ARE RECYCLED WILL EVENTUALLY MAKE THEIR WAY BACK INTO OUR NEW PRODUCTS THROUGH SPORT INFINITY. THIS WILL REDUCE OUR DEPENDENCY ON VIRGIN MATERIALS AND ALLOW US TO CREATE INNOVATIVE PRODUCTS FOR THE CONSUMER OUT OF MATERIAL WHICH WOULD OF OTHERWISE ENDED IN LANDFILL."

(INTERNAL ADIDAS DOCUMENTS 2017)

## 2. ADIDAS – DEPARTMENT CONCEPT TO CONSUMER-CTC

THE CONCEPT TO CONSUMER DEPARTMENT HAS MORE THEN 200 EMPLOYEES. ITS AIM IS TO CREATE GLOBALLY CONSISTENT PREMIUM CONSUMER EXPERIENCES AT RETAIL BY WORKING ON A WIDE VARIETY OF TOPICS, SUCH AS MERCHANDISING, CONSUMER ACTIVATION, STORE CREATIONS, DATA AND ANALYTICS. CTC'S GOALS ARE: LEVERAGING CREATIVITY, INCREASING PROFITABILITY AND DRIVING TOWARDS OPERATIONAL EXCELLENCE. CTC: "WE GUARD THE PLACES WHERE SPORT IS SOLD."

### 2.1 ADIDAS – RETAIL CONCEPT CREATION TEAM

THE RETAIL CONCEPT CREATION TEAM IS ANOTHER SUBGROUPING OF THE CTC DEPARTMENT. CURRENTLY, THE TEAM HAS 11 WORKERS WHO FOCUS ON TOPICS, SUCH AS RANGE ARCHITECTURE, RETAIL CONCEPTS, CONCEPT INNOVATION, FLAGSHIP PROJECT MANAGEMENT, CONCEPT DEVELOPMENT, CONCEPT LOOK AND FEEL, STORE LAYOUTS, CONSUMER JOURNEY AND IN-STORE EXPERIENCE.

THE RETAIL DESIGNERS WORK ON REFINING THE AREAS OF COMPETENCE OF THE DESIGN AND CONSTRUCTION OF THE 2,722 STORES WORLDWIDE. RETAIL DESIGN CAN BE DESCRIBED AS A COMBINATION OF SPECIALIZED PRACTICE OF ARCHITECTURE AND INTERIOR ARCHITECTURE. BY COMBINING DIFFERENT DEMANDS, SALE ELEMENTS, ADVERTISEMENTS, GRAPHIC DESIGNS, FUNCTIONAL DESIGNS, SAFETY REGULATIONS, GUIDELINES OF THE DIFFERENT LANDLORDS AND MANY OTHER DIFFERENT AREAS, RETAIL DESIGN AIMS TO PROVIDE THE CONSUMER A HOLISTIC SHOPPING EXPERIENCE. THE RETAIL CONCEPT CREATION TEAM WANTS TO

SHOWCASE THE COMPANY'S PRODUCTS IN A QUALITATIVE, HIGH STANDARD STAGING OF THE BRAND IMAGE. SEVERAL DEPARTMENTS, SUCH AS BRAND DESIGN, VISUAL MERCHANDISING (VM), IN STORE COMMUNICATION (ISC) AND RETAIL CONCEPT CREATION, WORK TOGETHER WITH THE DIFFERENT BUSINESS AREAS IN ORDER TO CREATE A COMMON CONCEPT DESIGN.

FOR EXAMPLE, IN 2016, ADIDAS OPENED A NEW FLAGSHIP STORE ON NEW YORK CITY'S 5TH AVENUE. WITH A TOTAL OF 4,234 SQUARE METERS ON FOUR FLOORS, ADIDAS TRIED TO BUILD A ONE OF A KIND BRAND EXPERIENCE. IN ORDER TO CREATE A SPORTS STADIUM FEELING, THE STORE DESIGN IS BASED UPON A TYPICAL U.S. HIGH SCHOOL SPORTS STADIUM.

THE CONSUMER IMMEDIATELY IS LAUNCHED INTO THE DESIGN BY STEPPING THROUGH THE STORE'S DOORS. AFTER WALKING THROUGH A STADIUM TUNNEL, THE CUSTOMER IS SURROUNDED BY STADIUM BLEACHERS WITH LARGE SCREENS, INVITING THE CONSUMER TO STAY FOR A PUBLIC SCREENING OF A SPORTS GAME. THE DRESSING ROOMS LOOK LIKE LOCKER ROOMS OF INTERNATIONAL TOP TEAMS AND THE CONSUMER CAN ALSO TRY OUT HER/HIS NEW EQUIPMENT ON THE STORE'S VERY OWN RUNNING TRACK.

## 2.2 SUSTAINABILITY AT RETAIL CONCEPT CREATION TEAM

SUSTAINABILITY IS AN INTEGRAL PART OF THE STORE DESIGNS. ADIDAS ALSO TRIES TO ONLY ADD POLLUTION FREE PRODUCTS, USES NON TOXIC WALL PAINT, TRIES TO PRESERVE THE STORES' BUILDINGS IN ORDER TO REDUCE THE DEMANDS OF NEW RESOURCES AND PRIORITIZES ON SAVING WATER AND FINDING INNOVATIVE MATERIALS. THE BUILDING OF ADIDAS NYC COMBINES ALL OF THESE TRAITS. THE STORE HAS BEEN PRESERVED

COMPLETELY, IT USES MORE NATURAL LIGHTING AND IN ADDITION TO THAT, CLOTHES HANGERS AND MANNEQUINS HAVE BEEN MADE OUT OF RECYCLED PLASTIC OF THE OCEAN. ADIDAS ACHIEVED THAT BY COOPERATING WITH ITS STRATEGIC PARTNER „PARLEY FOR THE OCEANS“. EVERY BUILDING PROJECT IS REGIMENTED WITH THE HELP OF THE „LEED“ (LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN) CERTIFICATION, THE LARGEST AND WORLDWIDE MOST RENOWN CLASSIFICATION SYSTEM FOR ENERGY- AND ENVIRONMENTAL-FRIENDLY PLANNING OF BUILDINGS. BY TRYING TO CHANGE THE EXISTING BUILDING AS LITTLE AS POSSIBLE WHILE STILL CREATING THE WANTED DESIGN AND CONCEPT, ADIDAS WANTS TO BE AS ENVIRONMENTALLY FRIENDLY AS POSSIBLE.

## FIVE FUNDAMENTALS :

1. LED LIGHTING
2. BASIC BUILDING AUTOMATION & LIGHTING CONTROL
3. HVAC ENERGY EFFICENCY
4. NO TOXIC IN FINISHES OR FURNITURE
5. WATER EFFICIENT FIXTURES

(INTERNAL ADIDAS DOCUMENT)

### 3. INTENTION OF MY WORK

THE INTENTION OF THE THESIS IS TO CREATE A BY-PRODUCT OF THE PRODUCT YOU CAN BUY.

THIS MASTER THESIS IS AN INNOVATIVE INTERFACE OF SUSTAINABLE DESIGN, SOCIETY (CONSUMERS) AND THE COMPANY ADIDAS (INDUSTRY).

I TRIED TO DEVELOP A NEW APPROACH BY USING MATERIALS IN AN UNUSUAL CONTEXT WITHIN THE THE ADIDAS PHILOSOPHY: THE TRANSFORMATION OF EXISTING WASTE MATERIALS.

AT THE BEGINNING STAGE OF MY WORK, I TRIED TO RETHINK WHAT MATERIAL REALLY IS AND PLAYED AROUND WITH THESE THOUGHTS. I MORE AND MORE FOCUSSED ON THE DIFFERENT MATERIALS OF WASTE AND THE POSSIBILITIES OF UPCYCLING IT INTO SOMETHING NEW. IT HAS RESULTED IN A VARIETY OF DESIGNED APPLICATION EXAMPLES OF WASTE FOR THE RETAIL DEPARTMENT OF ADIDAS.

THE SHOE PRODUCTION WASTE AND IT'S NEGATIVE IMPACT ON OUR ENVIRONMENT IS THE BASIS OF THIS WORK.

A REGULAR LIFE CYCLE OF A PRODUCT GOES THROUGH SEVERAL STAGES. IT BEGINS WITH THE RAW MATERIAL PRODUCTION, THEN OVER TO THE MANUFACTURING, THEN THE TRANSPORT, FOLLOWED BY RETAIL, USAGE AND, FINALLY, THE END OF LIFE.

THE MANUFACTURING PROCESS OF A PAIR OF SHOES IS 70% OF THE TOTAL ENVIRONMENTAL POLLUTION A PAIR OF SHOES CREATE (100% EQUAL THE COMPLETE LIFE CYCLE OF THE SHOES). THEREFORE, I WANTED TO CREATE SOMETHING WHICH IS WITHIN THE UP-CYCLING CIRCUITRY OF PRODUCTION WASTE. I WANT TO USE MATERIALS, WHICH ORIGINALLY WERE AT THE LIFE CYCLE'S END AND PUT IT INTO A NOVEL CONTEXT FOR RETAIL CREATION. I TRIED TO FIND A WAY IN CLOSING THE LOOP OF ADIDAS' MANUFACTURING WASTE AND UP-CYCLE IT FOR INTERIOR DESIGN.

THE GOAL AND CREATIVE GUIDELINE OF THIS WORK IS TO TRANSFORM THE EXISTING. THE RADICAL DESIGN AND THE FACT THAT IS MADE OUT OF PRODUCTION WASTE MUST BE VISIBLE SO THAT THE CUSTOMER RECOGNIZES ADIDAS' INNOVATIVE SUSTAINABILITY EFFORT AT FIRST SIGHT.

MY BASIC DESIGN RULES ARE: SIMPLIFYING, USING CONTRASTING COMBINATIONS, CREATING DIFFERENT SURFACES AND “FFF”. “FFF” MEANS FORM FOLLOWS FUNCTION.

IN THIS CASE IT MEANS, THAT THE RECYCLED MATERIALS ARE USED AS DESIGN ELEMENTS IN STORES, IN A WAY THAT THE MATERIAL CHARACTERISTICS ADD ANOTHER ADVANTAGE TO THE FINAL PRODUCT. WITH BUYABLE BY-PRODUCTS, THE CUSTOMER WILL GET MORE INSIGHT TO THE ADIDAS PRODUCTION AND, THUS, A STRONGER CONNECTION TO THE ADIDAS EXPERIENCE.

FURTHER THAN THAT, THE DESIGN ELEMENTS HAVE TO FIT TO THE COMPLETE STORE ENVIRONMENT AND TO THE VARYING DESIGN LEADS, BY BEING RAW, AUTHENTIC AND REAL: “BORN FROM CULTURE, BUILT FOR PURPOSE, DARINGLY SIMPLE.”(ADIDAS CREATIVE DIRECTION)

MY DESIGN ELEMENTS SHOULD BE SEEN AS INSTALLED HIGHLIGHTERS OF THE STORE. THEY ARE PERSONALIZED BY COMPANY BRANDING, STORYTELLING OF THE COMPANY’S PAST AND THE OBVIOUS USE OF BY-PRODUCTS OF THE ORIGINAL PRODUCTS IN ORDER TO IMPROVE THE ENVIRONMENTAL FOOTPRINT OF ADIDAS.



## 4. ADIDAS RUBBER WASTE

### 4.1 CONCEPT/RESEARCH

EVER SINCE ADIDAS CREATED ITS FIRST SHOE, SOLES WERE DESIGNED AS WELL. THE SOLES OF SHOES LEAVE FOOT PRINTS IN SAND, SNOW OR MUD. WITH DIFFERENT DESIGNS AND TEXTURES, SOLES STABILIZE THE CONSUMER AND GIVE HER/HIM GRIP. THE VALUE OF A SHOE SOLE HAS SHRUNKEN IN COMPARISON TO THE HOLISTIC SHOE DESIGN. HOWEVER, A SHOE SOLE CAN BE SEEN AS MUCH MORE THAN JUST ITS ORIGINAL FUNCTION.

#### FROM SOUL TO SOLE

IN BUDDHISM, BUDDHA'S FOOTPRINT IS VIEWED AS A SYMBOLIC COPY OF BUDDHA. THE BELIEVERS ARE SUPPOSED TO BE SHOWN THE WAY TO THE SPIRITUAL PATH. IT IS ALSO USED AS A REMINDER OF HIM AS A ROLE MODEL. LOOKING AT THE IMPORTANCE OF A SHOE SOLE FROM THIS PERSPECTIVE, I THOUGHT OF COMBINING THE METAPHOR OF A SHOE SOLE WITH, FOR EXAMPLE, THE LIFE OF ADI DASSLER AND, ULTIMATELY, FORMING IT TO A TRIBUTE OF HIS LIFE'S WORK. ONE COULD ALSO COMBINE IT WITH OTHER ATHLETES AND THEIR ACCOMPLISHMENTS WITH THEIR SHOES/SOLES. THIS IDEA CAN BE USED IN A VARIETY OF WAYS AND IS VERY FLEXIBLE. IT HIGHLIGHTS NOT ONLY THE ATHLETE BUT ALSO THE SHOE AND ITS BRAND. THE USE OF SHOE SOLES IN INTERIOR DESIGN WOULD PUT THE CONSUMER ON A SPIRITUAL PATH IN A METAPHORICAL SENSE. FOR ADIDAS, THIS SPIRITUAL PATH SHOULD BE PUT INTO A SPORT CONTEXT. TO SUM IT ALL UP, IT COMES DOWN TO THIS: FROM BUDDHA'S SOUL TO ADIDAS' SOLE.



IN 2016, ADIDAS PRODUCED AROUND 300,000,000 PAIRS OF SHOES. WASTE, ESPECIALLY RUBBER WASTE, AUTOMATICALLY ACCUMULATES DURING THAT KIND OF PRODUCTION. GENERALLY, ADIDAS RECOGNIZED THIS PROBLEM AND TOOK MEASURES AGAINST IT IN ORDER TO PRODUCE MORE SUSTAINABLY. IT USES RECYCLED RUBBER OR BETTER RUBBER, IT LOWERED THE OVERALL WEIGHT OF THE PRODUCT AND IT IS DESIGNED TO PRODUCE AS LITTLE WASTE AS POSSIBLE. ADIDAS IMPROVED THE PATTERN EFFICIENCY AND REDUCED THE MATERIAL WASTE, WHICH ULTIMATELY LEAD TO SAVED ENERGY, WATER, RESOURCES AND COSTS FOR UPSTREAM MATERIAL DEVELOPMENT. ADIDAS DID THAT BY, FOR EXAMPLE, USING DESIGNS WITH SINGLE COLOR OUTSOLES. SINGLE COLOR OUTSOLES REDUCE MATERIAL DEFECT, WASTE, MATERIAL USE, COSTS AND CYCLE TIME. THE SHOES ARE DESIGNED WITH CONSOLIDATE PARTS AND MATERIALS WHENEVER POSSIBLE. ALSO, THE SOCK-LINERS AND THE OUTSOLES SHOULD BE REMOVABLE IF POSSIBLE. THUS, THE SHOE CAN BE RECYCLED MORE EFFICIENTLY.

MOST SHOE SOLES IN THE PAST WERE MADE OUT OF SYNTHETIC RUBBER. HOWEVER, SYNTHETIC RUBBER IS MADE OUT OF 43% FOSSIL FUELS BASED BUTADIENE, MEANING NO RENEWABLE RESOURCES. THAT IS WHY ADIDAS CAME UP WITH "BETTER RUBBER" IN ORDER TO IMPROVE THE COMPANY'S ENVIRONMENTAL FOOTPRINT. BETTER RUBBER IS AN INNOVATIVE, SUSTAINABLE COMPOUND MADE FROM NATURAL RUBBER AND RECYCLED CONVENTIONAL RUBBER.

BETTER RUBBER CONTENT: 70% NATURAL RUBBER+ 10% RECYCLED CONTENT+ 20% FILLERS  
(SILICAL) NATURAL \* ELASTIC\* WATERPROOF

SYNTHETIC RUBBER CONTENT: 43% FOSSIL FUEL BASED BUTADIENE+ 14% FOSSIL FUEL BASED STYRENE+ 28% FILLERS.

## SUSTAINABILITY BENEFITS

NATURAL RUBBER IS SOURCED FROM THE LATEX, WHICH IS TAPPED FROM RUBBER TREES (A RENEWABLE RESOURCE). RECYCLED CONTENT RUBBER AVOIDS THE PRODUCTION OF VIRGIN SYNTHETIC RUBBER, THEREBY, SAVING RESOURCES AND ENERGY. LIFE CYCLE ASSESSMENTS (LCA) SHOW THAT BETTER RUBBER HAS LESS OF AN ENVIRONMENTAL IMPACT AS COMPARED TO TRADITIONAL SYNTHETIC RUBBER.

## BETTER RUBBER VS. SYNTHETIC RUBBER

GREENHOUSE GAS EMISSIONS(KG CO2EG)

ENERGY (MJ)

WATER INPUT (LITERS)

BETTER RUBBER :	-0,10	13	1203
SYNTHETIC RUBBER :	3,31	95	1245
BETTER RUBBER VS. SYNTHETIC RUBBER :	103% LESS	84% LESS	3% LESS

WHAT DOES IT MEAN? SAVING ALMOST 1,5 LITERS OF PETROL TURNING OFF 15 LIGHTBILBS (60W) FOR 24 HOURS SAVING 42 LITER BOTTLES OF WATER

NATURAL RUBBER PRODUCTION IS A LONG- ESTABLISHED COMMERCIAL INDUSTRY. HOWEVER, ITS PRODUCTION IS FRAGMENTED WITH MANY SMALL SUPPLIERS PRODUCING THE CROP. AS DEMAND FOR NATURAL RUBBER GROWS, ONE ISSUE IS TO ENSURE THAT NEW PLANTATIONS ARE BEING DEVELOPED ON NON-TROPICAL FORESTED LANDS IN ORDER TO AVOID HABITAT LOSS AND ECOLOGICAL DISRUPTION. THE INTERNATIONAL RUBBER STUDY GROUP IS DEVELOPING VOLUNTARY CERTIFICATION STANDARDS FOR SUSTAINABLE NATURAL RUBBER.

THE TRACEABILITY PROGRAM (SIMILAR TO ORGANIC COTTON'S) WOULD ALLOW BRANDS TO SOURCE NATURAL RUBBER FROM PLANTATIONS, WHICH EXHIBIT SUSTAINABLE MANAGEMENT STANDARDS AND HAVE NOT BEEN CULTIVATED ON NATURAL FOREST LAND.

RECYCLED RUBBER IS ANOTHER SUSTAINABLE ALTERNATIVE TO SYNTHETIC OR BETTER RUBBER. RECYCLED RUBBER REFERS TO A COMBINATION OF VIRGIN RUBBER MIXED WITH A CERTAIN AMOUNT OF FINELY GROUND RUBBER FROM THE FACTORY'S OWN DEFECT/SCRAP. THE GROUND RUBBER CANNOT BE PROPERLY CO-VULCANIZED WITH THE MATRIX OF VIRGIN RUBBER, RESULTING IN POOR BONDING BETWEEN THE TWO INTERFACES.

THE RESULT OF USING RECYCLED RUBBER IS LOWER PHYSICAL PROPERTIES, ESPECIALLY TENSILE STRENGTH AND TEAR STRENGTH. IN ORDER TO CONSISTENTLY MEET THE ADIDAS REQUIREMENTS FOR PHYSICAL PROPERTIES OF RUBBER OUTSOLES, THE USAGE AMOUNT OF GROUND RUBBER WITH PROPER PARTICLE SIZE SHOULD BE NO MORE THAN 10% BY WEIGHT.

ADIDAS TARGETS BY 2020:

- 100% RUBBER SCRAP RECYCLED IN-HOUSE
- BUILD UP SUPPLY CHAIN FOR PARLEY OCEAN PLASTIC

(INTERNAL ADIDAS DOCUMENTS)

#### 4.2 ACQUISITION/ ORIGINAL USE AT ADIDAS

ORIGINALLY, ADIDAS MAINLY USES RUBBER FOR ITS SHOE PRODUCTION. THUS, THE COMPANY USES THE HOTSPOT OF THE MANUFACTURING PROCESS OF THE SHOE INDUSTRY .

THE ATTRIBUTES OF THIS RUBBER ARE: COMPOUND 60A 80 GUM NM, HARDNESS 60A SHORE, 80 DIN ABRASION. THE RUBBER IS CLASSIFIED AS DEFECTIVE ONCE IT IS CONTAMINATED, TOO THICK ON THE SPEW OR CONTAINS AIR BUBBLES.

THE RECEIVED RUBBER FROM VIETNAM IS DIE CUTTED SHOE SOLES WITH DIFFERENT PATTERNS, TEXTURES AND THREE-DIMENSIONAL ADIDAS LOGOS. THE LOGO IS ALWAYS PLACED IN THE MIDDLE OF THE SOLE BECAUSE IT ABRADES LESS THAN AT ANY OTHER SPOT OF THE SOLE. THUS, THE LOGO WILL STAY IN TACT AS LONG AS POSSIBLE. ONE MUST KNOW, THAT WHEN DESIGNING A SHOE, THE TEXTURE OF THE SOLE CHANGES THE GRIP OF THE SHOE.

THEREFORE, THE OUTDOOR SHOE'S PROFILE IS VERY DIFFERENT IN COMPARISON TO AN INDOOR SPORTS SHOE. THE PROFILE'S THICKNESS OF THE RECEIVED SHOES FROM THE FACTORIES RESEMBLE SNEAKERS (STREETWEAR) AND INDOOR SPORTS SHOES.

#### 4.3 PROCESSING METHODS

THE PROCESSING METHOD DEPENDS ON THE CHARACTERISTICS OF THE RUBBER AND ITS ORIGINAL USE. THE TECHNICAL REQUIREMENTS FOR SOLING MATERIALS ARE: IT MUST BE COMPLIANT RESISTANT TO FRACTURE, TEAR, ABRASION AND CAPABLE OF LARGE-STRAIN ELASTICITY. IT MUST HAVE LOW DENSITY OR WEIGHT AND CUT GROWTH DIMENSION STABILITY. IT CANNOT DISTORT, SHRINK OR SPREAD DURING PROCESSING. AT FIRST, I HAD TO FIGURE OUT HOW THE RUBBER CHANGES BY COMBINING IT WITH DIFFERENT MATERIALS AND BY WORKING ON IT WITH DIFFERENT TECHNIQUES. THE FUNCTIONAL STRESS RESISTANCE

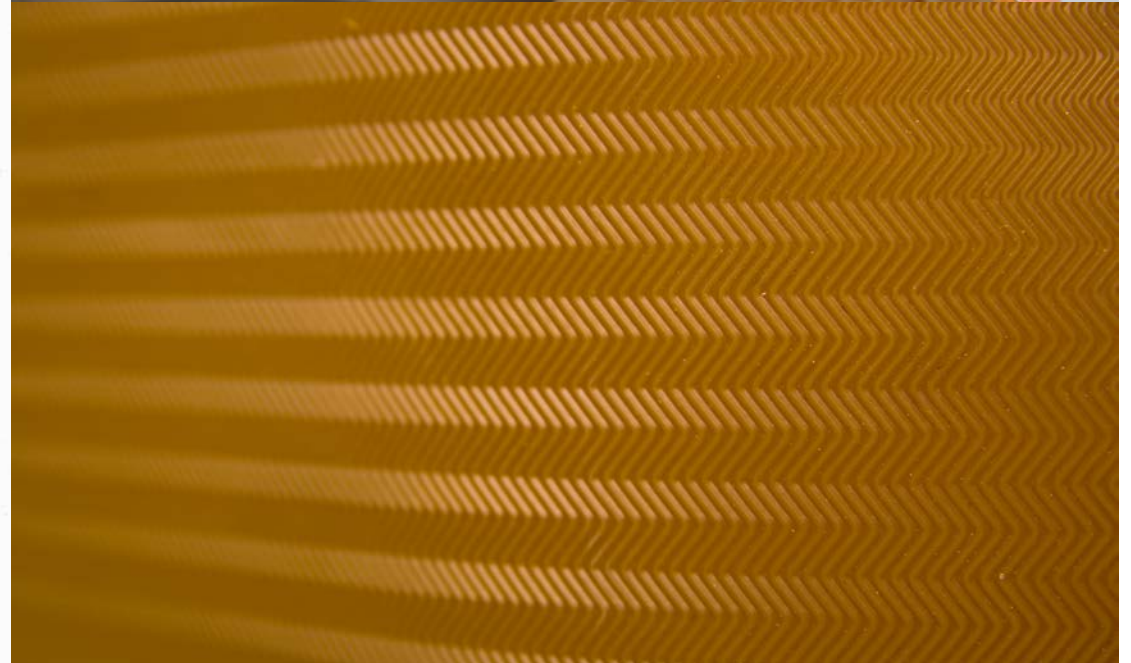
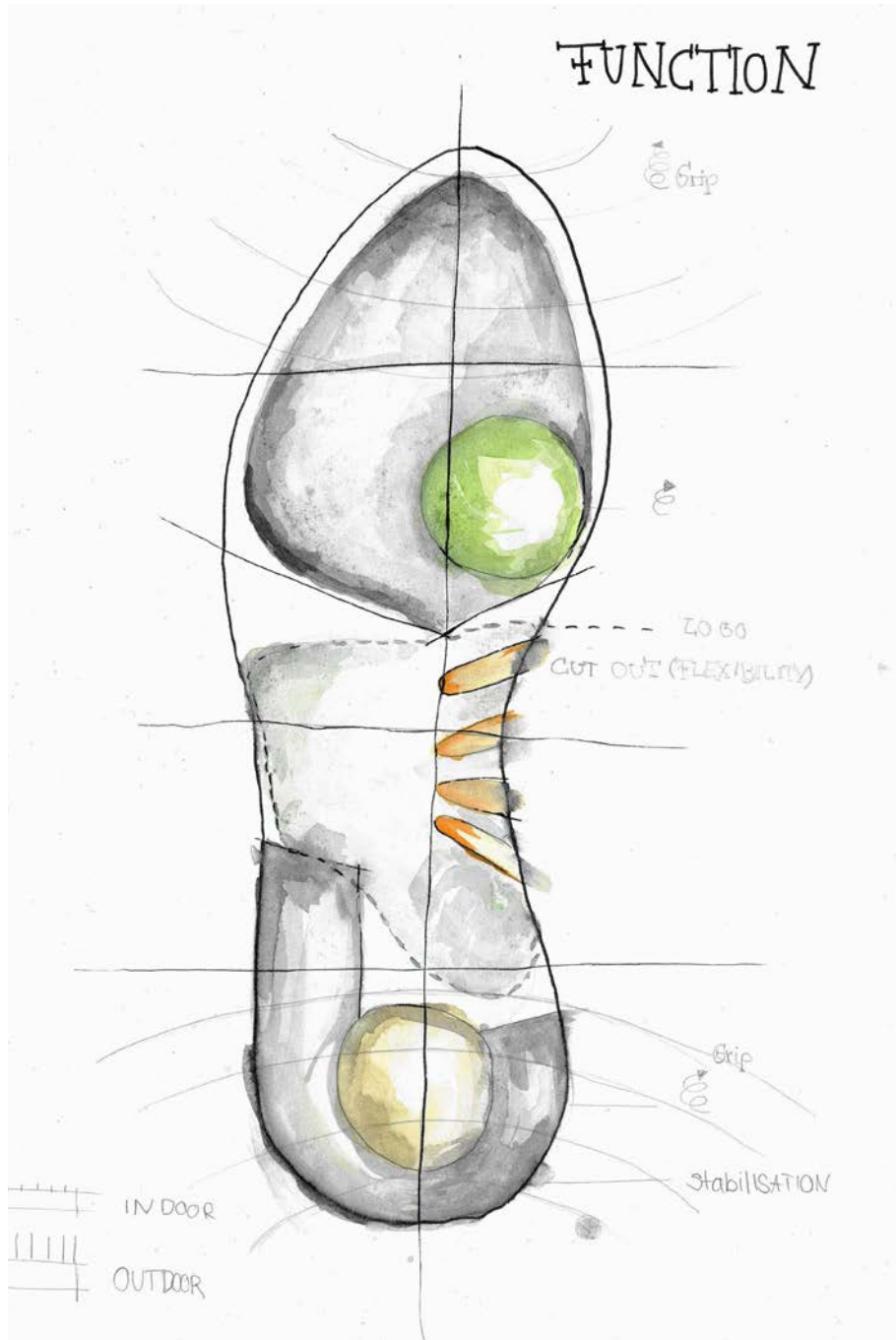
WAS VERY INTERESTING AND COULD BE USEFUL FOR PARTIAL FLOOR ELEMENTS. I ALSO TRIED TO WORK ON THE RUBBER MECHANICALLY BY CUTTING AND GLUEING IT. I ALSO TRIED TO FORM IT WITH THE USE OF HEAT. HOWEVER, BY USING HEAT, THE RUBBER CREATED SUCH LARGE AMOUNTS OF TOXIC SMOKE THAT I HAD TO QUIT THE EXPERIMENT. FOR THE END RESULT, I FOCUSSED ON CUTTING.

#### 4.4 DESIGN

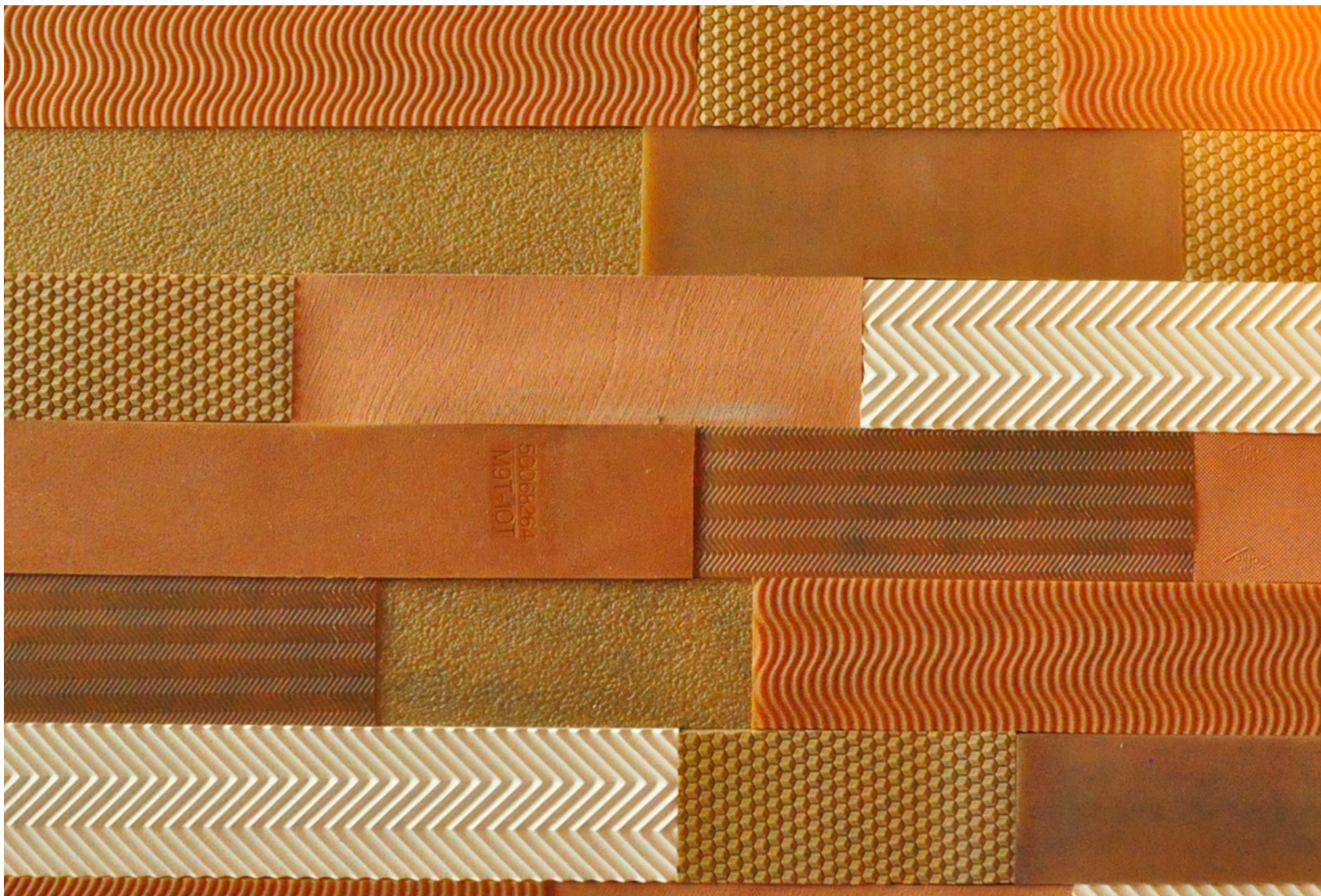
THE DESIGN AND MATERIALIZATION DEPENDS ON THE ORIGINAL MATERIAL AND, THEREFORE, IS LIMITED TO THE SINGLE ELEMENT'S SIZE. IN THIS CASE, THE RUBBER WASTE WAS CUT INTO SHOE SOLE FORMS AND, THUS, FITTED INTO ITS ORIGINAL USE.

#### 4.5 FUNCTION AND USE IN STORES

BECAUSE OF ITS ABRASION-RESISTANCE, RUBBER AUTOMATICALLY FITS PERFECTLY FOR A VARIETY OF DESIGNS IN STORES. FOR EXAMPLE, STORES NEED SLIP-PROOF, ABRASION-RESISTANT, PERFORATION-RESISTANT, AND WATER-PROOF FLOORS. THE MATERIAL THEREFORE FITS WELL AS A FLOOR ELEMENT, F.E. IN THE FITTING ROOMS OR IN THE CREATE ZONES AT STORES. IT COULD ALSO BE USED AS A DESIGNED RUBBER SURFACE, WHICH COULD BE DISPLAYED NEXT TO THE RELATED SHOE. THE CUSTOMER WOULD AUTOMATICALLY NOTICE THE LINK FROM THE DESIGNED RUBBER TO THE DISPLAYED SHOE AND ITS SOLE.



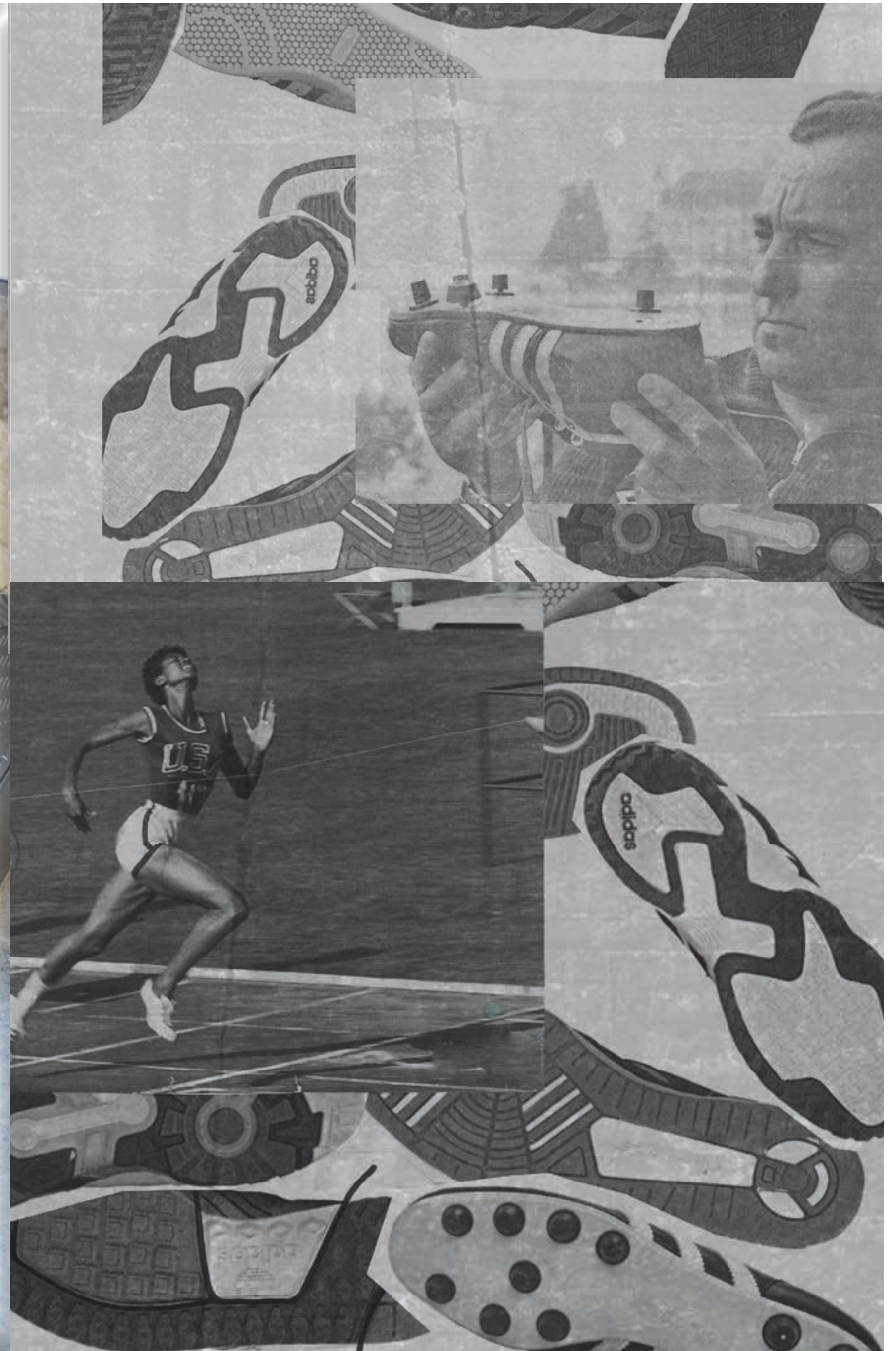
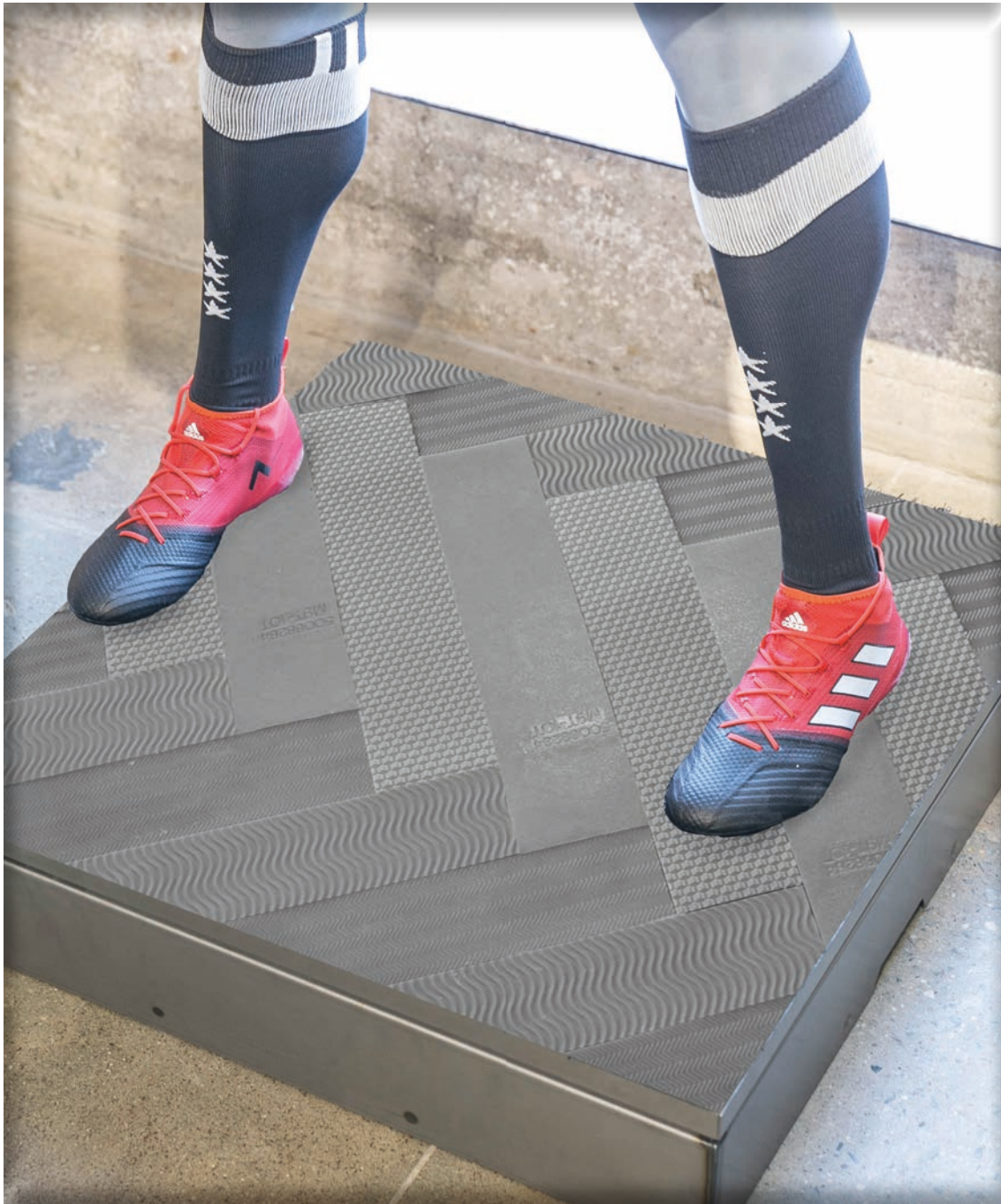
















## 5.0 ADIDAS TRIMMED LEATHER WASTE

### 5.1 CONCEPT/RESEARCH

ACTUALLY, LEATHER PARTS WITH HOLES, DIFFERENT FORMS OR TEARS IN THE SURFACE ARE USELESS FOR THE SHOE PRODUCTION. THEY ARE SORTED OUT BY QUALITY STANDARDS OF THE COMPANY AND ARE “AT THE END OF LIFE”. HOWEVER, THESE EXACT ERRORS OF THE LEATHER CAN BE USED AS DESIGN ELEMENTS. THE IMPERFECTION OF THE LEATHER MAKES IT ONE OF A KIND AND IS PERFECT FOR SURFACE DESIGNS OF SEATING FURNITURE, IN MY CASE A BENCH, WHICH COULD BE USED IN ADIDAS STORES. BY TURNING TRIMMED LEATHER WASTE FROM THE FACTORIES INTO A DESIGNED SURFACE FOR A BENCH, I WANT TO CELEBRATE THE DIVERSITY OF THE DIFFERENT LEATHER WASTE PIECES. I AIM TO GIVE THE CONSUMER AT THE STORE AN INSIGHT TO THE MANUFACTURING PROCESS OF SHOES JUST BY EXPERIENCING THE SURFACE DESIGN. THIS WILL CREATE A STRONG SUSTAINABLE CONNECTION FROM THE CONSUMER TO THE COMPANY ADIDAS.

BY NATURE, ONE CANNOT INFLUENCE THE SIZE AND FORM OF AN ANIMAL’S LEATHER. THEREFORE, LEATHER IS ALWAYS LIMITED IN ITS FORM AND SIZE AND CANNOT BE BOUGHT AS ONE WISHES. IT IS A NATURAL PRODUCT, PRONE TO FLAWS AND ALSO DOES NOT HAVE UNIFORM PROPERTIES. THEREFORE, PROBLEMS FOR THE INDUSTRY ARISE WHEN IT COMES TO THE USE OF LEATHER. IT IS TO BE EXPECTED

THAT THE LEVEL OF WASTE FOR LEATHER WOULD BE HIGHER THAN FOR SYNTHETIC MATERIALS. OFTEN, ADIDAS TRIES TO USE RECYCLED OR SYNTHETIC LEATHER. THE SURFACE OF LEATHER IS VERY SENSITIVE AND CAN BE DAMAGED VERY EASILY. THUS, ADIDAS TRIES TO MINIMIZE THE LEATHER WASTE BY HAVING VERY HIGH STANDARDS OF QUALITY FOR THE LEATHER. A SPECIES-APPROPRIATE ANIMAL FARMING LEADS TO LESS INSECT INFESTATION AND LESS IMPURITY OF THE PRODUCT SURFACE. ADIDAS IS PART OF THE BLC (LEATHER TECHNOLOGY CENTRE) LEATHER WORKING GROUP, WHICH HAS DEVELOPED STRICT STANDARDS AND AUDIT PROTOCOLS. THEY CHECK COMPLIANCE THROUGH INDEPENDENT MONITORING OF TANNERY SITES. THE GROUP DOES NOT SOURCE OR PROCESS RAW MATERIALS FROM ANY ENDANGERED OR THREATENED SPECIES. BLC SEEKS TO IMPROVE THE LEATHER MANUFACTURING INDUSTRY BY CREATING ALIGNMENT ON ENVIRONMENTAL PRIORITIES, BRINGING VISIBILITY TO BEST PRACTICES AND PROVIDING SUGGESTED GUIDELINES FOR CONTINUAL IMPROVEMENT.

ADDITIONALLY, ADIDAS IS A MEMBER OF THE ANIMAL WELFARE SUBGROUP.

ADIDAS' TARGETS:

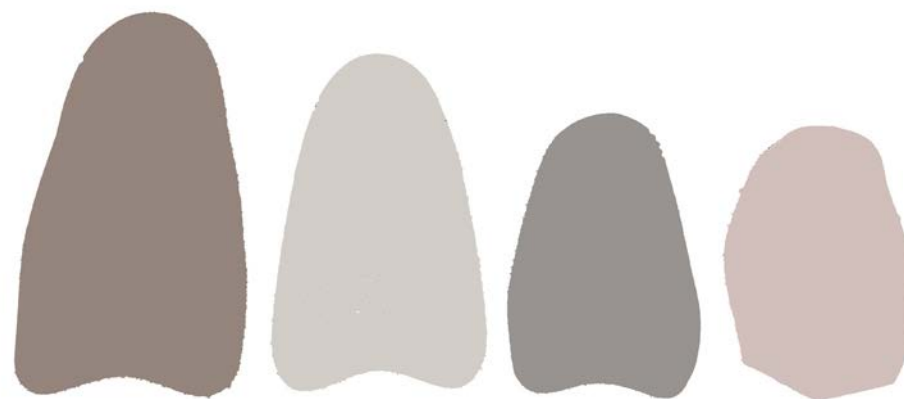
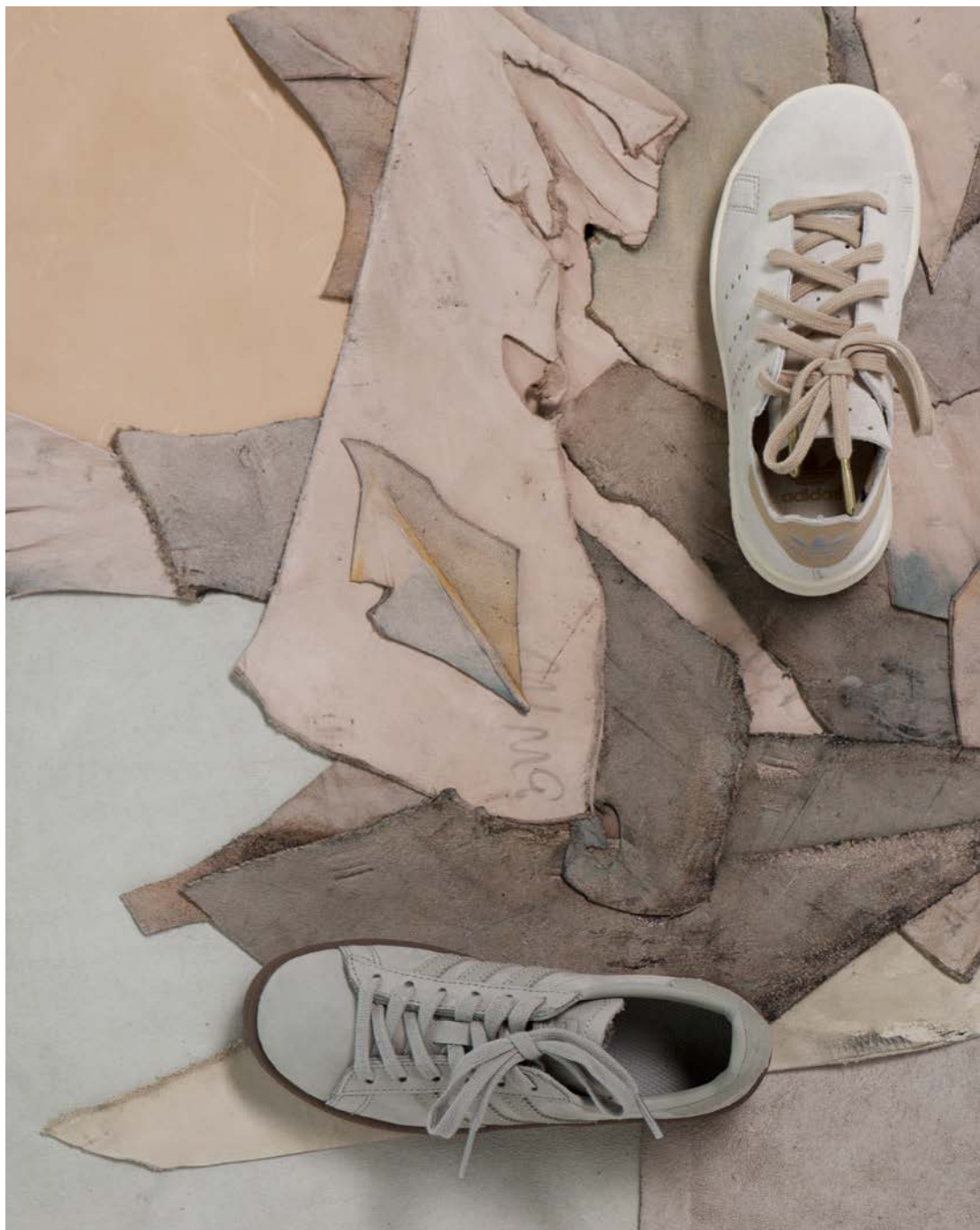
- 99% LEATHER FROM MEDAL-RATED TANNERIES
- 90% GOLD RATED TANNERIES
- TRACEABILITY RATING 90%, " B " OR ABOVE."

ALSO, ADIDAS TRIES TO USE RECYCLED OR SYNTHETIC LEATHER AS MUCH AS POSSIBLE. THE RECYCLED LEATHER IS MADE OUT OF LEATHER FIBERS OR CUTS FROM DIFFERENT STAGES OF THE LEATHER PROCESS. A COMPLETE SWITCH TO ONLY USING SYNTHETIC LEATHER IS IMPOSSIBLE AT THIS POINT. THIS IS WHY I CREATED AN APPLICABLE DESIGN POSSIBILITY FOR TRIMMED LEATHER WASTE.

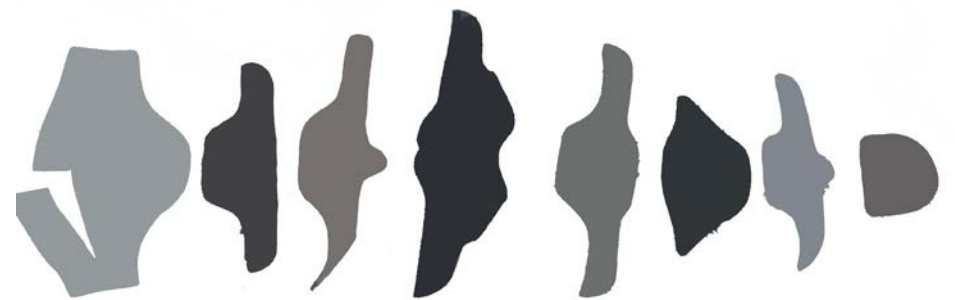
(INTERNAL ADIDAS DOCUMENTS 2017)

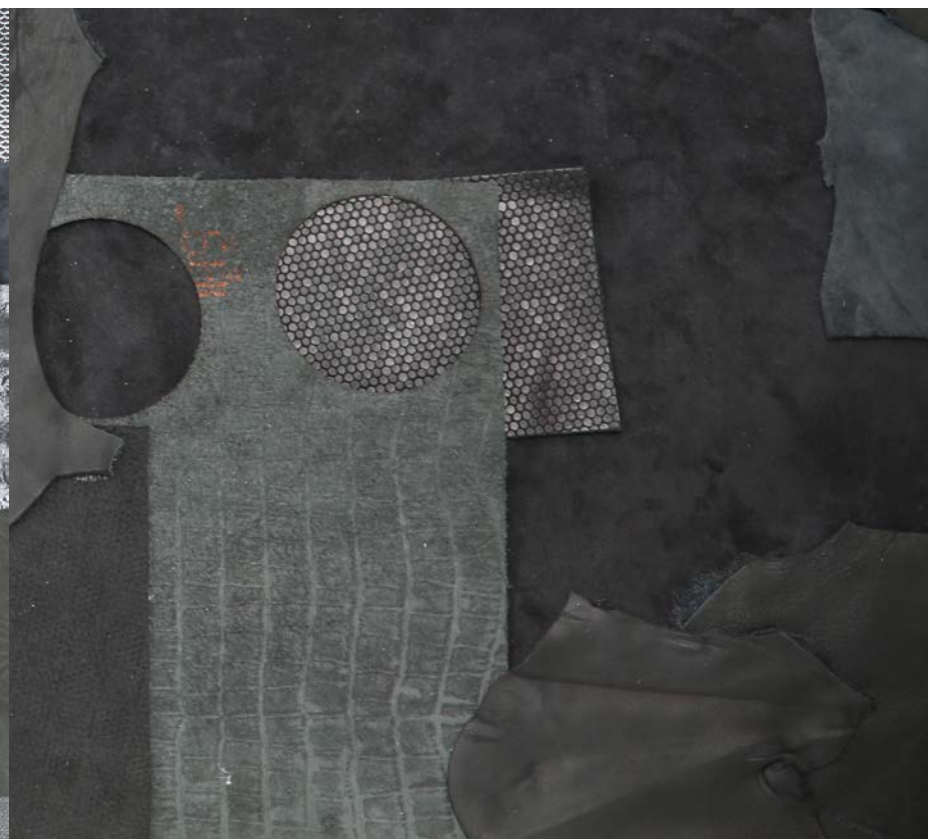
## 5.2 ACQUISITION/ ORIGINAL USE AT ADIDAS

THE LEATHER FOR THIS MASTER THESIS COMES FROM SHOE FACTORIES IN VIETNAM AND THE LEATHER SAMPLES WASTE COMES FROM HERZOGENAURACH. IT IS COLORED, NOT COATED NOR PROCESSED. THEREFORE, IT HAS BEEN SORTED OUT IN A VERY EARLY POINT OF THE PRODUCTION PROCESS AND FACED THE „END OF LIFE“. THE SORTED OUT LEATHER WASTE OF THE FACTORIES AND THE LEATHER SAMPLES WASTE HAS A WIDE VARIETY OF THICKNESSES AND SIZES. OBVIOUSLY, THE DIFFERENT COLORS OF THE SHOES LEAD TO DIFFERENT LOOKING TRIMMED LEATHER WASTE. THE FOLLOWING PICTURES ARE EXAMPLES OF A VARIETY OF COLORED LEATHER WASTE COMBINATIONS.















### 5.3 PROCESSING METHODS

I HAVE TRIED SEVERAL IDEAS, SUCH AS LEATHER CUTOUTS OR SPRAYING THE LEATHER. ULTIMATELY, I FOUND THE BEST RESULTS BY DIE-CUTTING, EMBOSSING AND SEWING.

### 5.4 DESIGN

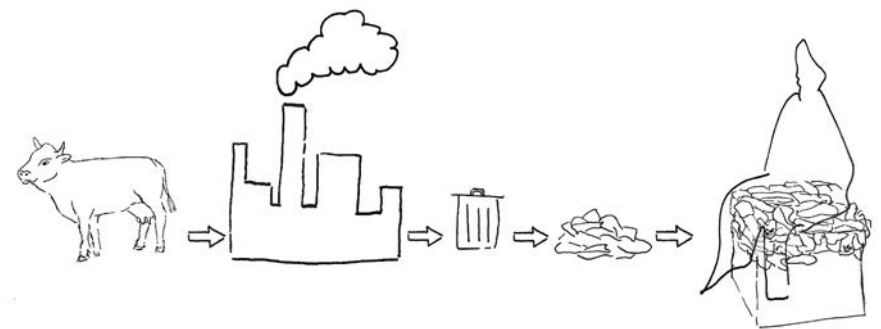
ORIGINALLY, THE TRIMMED LEATHER WASTE'S DISADVANTAGE IS ITS DIVERSITY AND DIFFERENT FLAWS. HOWEVER, I AM USING THIS TO MY ADVANTAGE, AS I LOOK AT IT AS RAW AND AUTHENTIC. THE INDIVIDUALITY OF EACH PIECE CREATES AN AUTHENTIC AND REAL APPEARANCE. I WANT TO CREATE A CHANGE OF PERSPECTIVE FROM THE ORIGINAL WASTE TO A NEW PRODUCT IN A STORE AND, THUS, MAKE IT AS WORTHY AS THE LEATHER OF A FINAL SHOE. FIRST, THE LEATHER WASTE IS DIE-CUTTED BY DIFFERENT MACHINES AND TOOLS INTO THE ORIGINAL, CONVENTIONAL FORMS OF THE QUALITATIVE, FLAWLESS LEATHER OF THE SHOE PRODUCTION. IN ORDER TO MAKE THE ORIGINAL USE OF THE LEATHER MORE OBVIOUS TO THE CUSTOMER, THE DIE-CUTTED ELEMENTS ARE ALSO EMBEDDED WITH THE ADIDAS LOGO AND OTHER COMPANY BRANDING ELEMENTS. THEN, THE DIE-CUTTED ELEMENTS ARE SEWN TOGETHER WITH ORIGINAL LEATHER WASTE PARTS AND LEFTOVER LEATHER PARTS FROM THE DIE-CUTTING PROCESS.

### 5.5 FUNCTION AND USE IN STORES

THE SEWN TOGETHER LEATHER PARTS ARE DESIGNED FOR SEATING FURNITURE SURFACES. BY PRESENTING THE SEATING FURNITURE NEXT TO THE CORRELATING SHOES, THE CUSTOMER WILL NOTICE THE SUSTAINABLE DESIGN. ALSO, THE SHOES ARE HIGHLIGHTED EVEN MORE. BY USING SUCH FURNITURE, ADIDAS COULD FOR EXAMPLE DO A TRIBUTE TO THE STAN SMITH SHOE. THE CUSTOMER CAN SIT ON THE FURNITURE, FEEL THE DIFFERENT FORMS AND TEXTURES AND, ULTIMATELY, GET A FEELING FOR THE MANY DIFFERENT PARTS A SHOE IS MADE OF. THE CONSUMER IS PRESENTED THE INSIGHTS OF THE MANUFACTURING PROCESS OF ADIDAS SHOES WHILE SHOPPING AT THE STORE.









## 6.0 ADIDAS PRIMEKNIT WASTE

### 6.1 CONCEPT/RESEARCH

ADIDAS PRIMEKNIT SHOES ARE MADE BY USING A FLAT KNITTING TECHNIQUE. THE TOP PART OF THE SHOE IS MADE OUT OF ONE PIECE, THUS, IT PRODUCES LESS WASTE, LOWER WEIGHT AND IS THEREFORE ENVIRONMENTALLY FRIENDLY. THE SHOE KNITTING TECHNOLOGY AND THE PRIMEKNIT-CONCEPT ARE BEING EXPANDED BY “SPORTS PERFORMANCE”, “ORIGINALS” AND “STYLE”. PRIMEKNIT IS SUPPOSED TO BE COMFORTABLE AS A SOCK AND STRONG LIKE A SHOE. THE UPPER OF THE SHOE IS KNITTED IN ONE PIECE FROM THE HEEL. PRIMEKNIT’S YARNS OFFER STABILITY AND STRENGTH LIKE REGULAR BOOTS. EACH YARN HAS A PRECISE COATING IN ORDER TO PROVIDE A FULL RESISTANCE OF WATER. BY USING PROGRESSIVE MANUFACTURING TECHNIQUES, THE ONE-LAYERED OUTER MATERIAL IS DESIGNED WITH ZONES IN ORDER TO BE SPECIALIZED IN ALL ASPECTS OF THE GAME. THE ONE-LAYERED OUTER MATERIAL IS DESIGNED WITH NO MATERIAL WASTE AND THEREFORE MAKES THE PRIMEKNIT ADIDAS THE MOST SUSTAINABLE FOOTBALL BOOT TO DATE.

THE NUMBERS OF THE ADIDAS PRIMEKNIT SHOE PRODUCTION INCREASED FROM 8000 TO 16,000,000 PAIRS OF SHOES AND THE NUMBER OF KNITTING MACHINES INCREASED FROM 120 TO 2700. THE PRIMEKNIT FABRIC IS MADE OUT OF POLYESTER (PES), HOWEVER, IT WILL BE MADE MORE AND MORE OUT OF PARLEY YARN (RECYCLED POLYESTER) IN THE FUTURE.

NOT ONLY ADIDAS IS USING A VERSION OF THIS TECHNIQUE. NIKE ALSO HAS A LINE OF KNITTED SHOES, CALLED THE FLYKNIT. IT IS A LIGHTWEIGHT SNEAKER WHICH IS SUPPOSED TO REDUCE THE TYPICAL WASTE OF SHOE PRODUCTION BY 80%. BOTH COMPANIES HAVE BEEN COMPETING IN WHO WOULD RELEASE A NEW VERSION OF THE KNITTED SHOE FIRST.

NIKE'S HYBRID SOCK AND CLEAT WAS ANNOUNCED RIGHT AFTER THE RELEASE OF ADIDAS' PRIMEKNIT. PARKER (NIKE, 2014)): "BECAUSE OF THE FACT THAT THE UPPER IS MADE IN ONE PIECE, PRODUCTION IS QUICKER, HAS LESS LABOR AND LARGER PROFIT MARGINS." THE COMPANY WILL NOT GIVE PRECISE NUMBERS, THOUGH.

IN COMPARISON TO THE KNITTED SHOES, THE MANUFACTURING OF CONVENTIONAL SHOES INVOLVES A GREAT DEAL OF TIME AND EFFORT. IT ALSO PRODUCES A HIGH AMOUNT OF CUTTING WASTE. IN THE YEAR 2012, OVER 21 BILLION PAIRS OF SHOES WERE MANUFACTURED. IF JUST ONE GRAM OF WASTE HAD BEEN SAVED ON EACH OF THOSE PAIRS, THE PILES OF GARBAGE WOULD HAVE BEEN 21,000 TONS SMALLER. NIKE CLAIMS THAT THE FLYKNIT PRODUCES 66% LESS WASTE THAN THE AIR PEGASUS+ 28.

IN ESTIMATION, 20 BILLION PAIRS OF SHOES ARE PRODUCED ANNUALLY, WITH ROUGHLY 300 MILLION PAIRS ENDING UP IN LANDFILLS AFTER THEY HAVE BEEN WORN. THE ETHYLENE VINYL ACETATE, WHICH USUALLY IS USED FOR THE MIDSOLE OF MOST RUNNING SHOES, CAN LAST FOR AS LONG AS 1,000 YEARS IN A LANDFILL.

ASIDE FROM PRODUCING GREAT SHOES, KNIT TECHNOLOGY HAS DONE BIG THINGS FOR THE FOOTWEAR INDUSTRY. COMPARED TO CUT AND SEW FOOTWEAR, FLYKNIT PRODUCTION IS SAID TO REDUCE THE WASTE LEFT OVER FROM EACH SHOE BY ABOUT 60%, DUE TO THE FACT THAT THERE ARE NO OFFCUTS. BETWEEN 2012 AND 2016, NIKE HAS REDUCED WASTE BY OVER 1,500,000 KILOGRAMS.

FOUR YEARS AFTER THE INTRODUCTION OF THE MANUFACTURING, NIKE COMPLETED THEIR TRANSITION IN PRODUCTION FROM ALL CORE YARNS TO RECYCLED POLYESTER. AT THE TIME, THIS ACCOUNTED FOR 182 MILLION PLASTIC BOTTLES BEING DIVERTED FROM LANDFILL.

## 6.2 ACQUISITION/ ORIGINAL USE AT ADIDAS

WHILE THE SIMPLICITY OF THE KNITTING SHOES IS STREAMLINING THE INDUSTRY, SUSTAINABILITY IS NOT THE ONLY THREADED BENEFIT OF THIS PROJECT. KNITTED SHOES MEAN A REDUCTION IN MATERIALS, LABOR, SHIPPING AND TIME. THE SHOES CAN NOW BE PRODUCED ALL IN ONE PLACE, MAKING IT A SELF-CONTAINED PROCESS, THAT CAN BE USED BY SMALL COMPANIES. THIS MEANS THAT MORE PRODUCTION CAN BE DONE LOCALLY — BENEFITING BOTH THE BUSINESS AND CONSUMERS.

THE ADVANTAGE OF THE KNITTING SHOES IS THAT ANY SORT OF FUNCTIONAL SPECIALTY CAN BE ADDED TO THE ONE KNITTING PIECE BY INDIVIDUALLY ADAPTABLE KNITTING MACHINES. BY USING ELASTANE, THE SHOE ADAPTS TO EACH INDIVIDUAL FOOT LIKE A SOCK. DURING THE PRODUCTION OF KNITTING SHOES, ADIDAS USES POLYESTER YARN (PES). IN THE FUTURE, THIS IS SUPPOSED TO BE MADE OUT OF PARLEY YARN. THE PRIMEKNIT EMBROIDERY IS TEAR-PROOF AND SCRUB RESISTANT. THE PRIMEKNIT KNITTED FABRIC IS CREASE-RESISTANT. THESE CHARACTERISTICS ARE PERFECTLY MADE FOR SEATING SURFACES AND SEAT CUSHIONS.

## 6.3 PROCESSING METHODS

THE RECEIVED MATERIALS FROM VIETNAM'S FACTORIES ARE IN A VARIETY OF FORMS, SUCH AS DIFFERENT KNITTINGS, SIZES, FORMS OF SHOES AND COLORS. THE KNITTING PARTS HAVE SOMETIMES PRODUCTION FLAWS IN THE KNITTED FABRIC. HOWEVER, THEY ARE SO SMALL THAT ONLY SOMEONE WITH EXPERIENCE NOTICES IT. OTHERS HAVE TEARS ON THE SIDE, PROBABLY ACCIDENTALLY MADE BY THE MACHINES. ALSO, THE EMBROIDERY SOMETIMES HAS HOLES AND IS THEREFORE REJECTED.

FIRST OF ALL, WITH THE RIGHT PROCESSING METHOD, ONE MUST LOOK AT THE WASTE'S CHARACTERISTICS HOLISTICALLY. MOST KNITTINGS HAVE DIFFERENT COLORS ON THE UNDER- AND UPSIDE. THE INTENDED HOLES FOR THE SHOE LACES ARE ALSO INTEGRATED IN THE KNITTING. ALSO, WITH A HIGH AMOUNT OF ELASTANE, ONE CAN STRETCH THE MATERIAL VERY EASILY.

#### 6.4. DESIGN

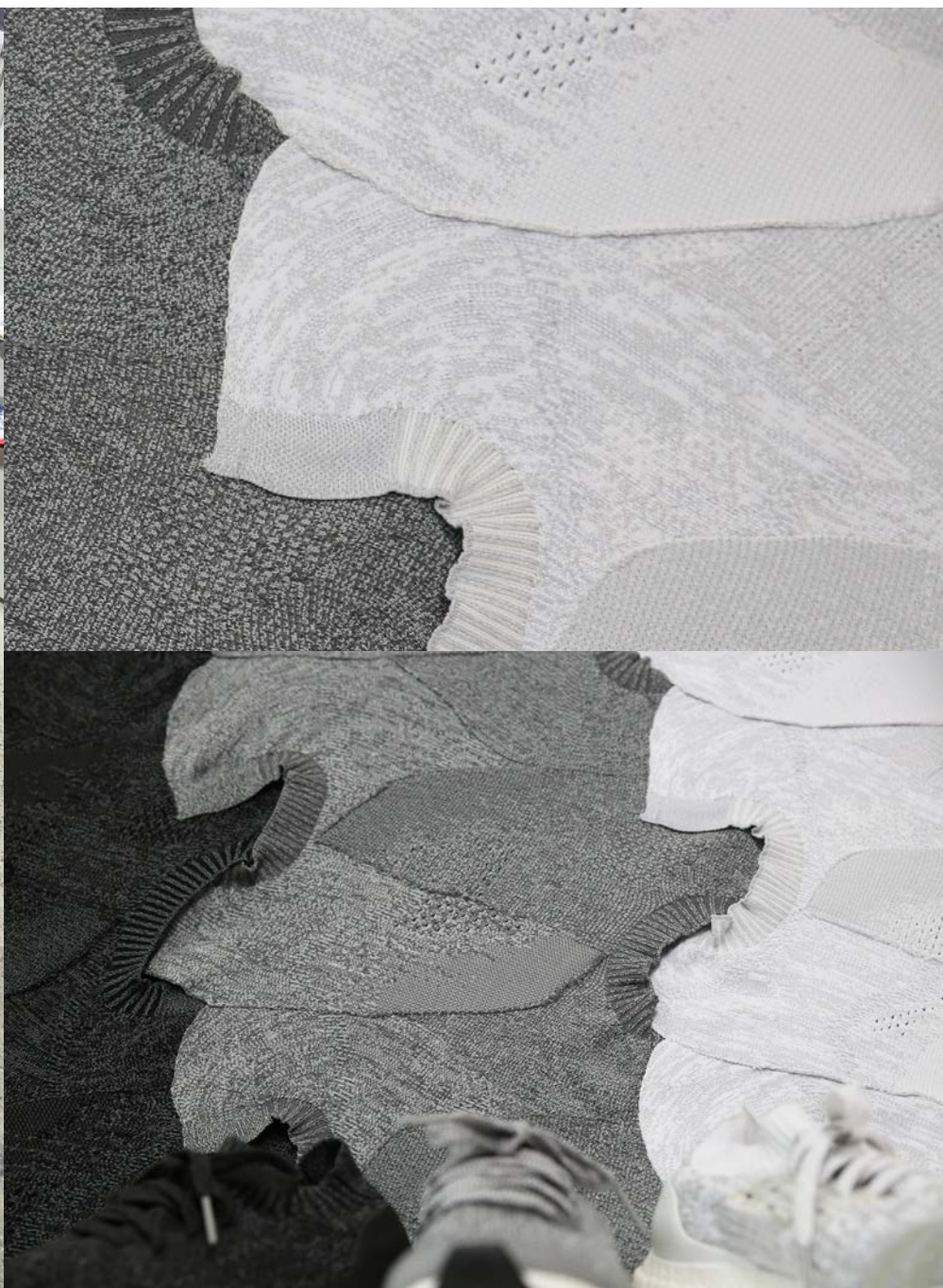
AT FIRST, I SEPARATED SEVERAL KNITTINGS IN ORDER TO DISTANCE MYSELF FROM THE SHOE DESIGN. THIS IS HOW I CAME UP WITH THE IDEA OF USING THE POLYESTER YARN AS A FILLING MATERIAL FOR SEATING CUSHIONS. AFTER THAT, I TRIED TO PARTIALLY SEPARATE THE MATERIALS.

LASTLY, WITH THIS MATERIAL I FOCUSSED ON A CLASSIC PATTERN MAKING, AN REPEATED OFFSET PATTERN WITH DIFFERENT COLOR COMBINATIONS, CREATING A RHYTHM OF CONTRASTING COLORS. THESE DIFFERENT FRAGMENTS ARE THEN PUT TOGETHER BY SEWING. THE RESULTING PATTERN IS DEPENDED ON THE SHOE SIZES AND THEIR KNITTING DESIGN. THE BIGGER THE SHOE, THE EASIER IT IS TO CREATE A PATTERN.

#### 6.5. FUNCTION AND USE IN STORES

IN STORES, THIS MODERN PATCHWORK TEXTILE COULD BE USED AS A COVER FOR SEATING CUSHIONS, BENCHES OR PILLOWS IN LOUNGES. FOR THE INTERIOR DESIGN, THESE SEATING CUSHIONS OR BENCHES COULD THEN BE PUT NEXT TO THE CORRELATING SHOES.

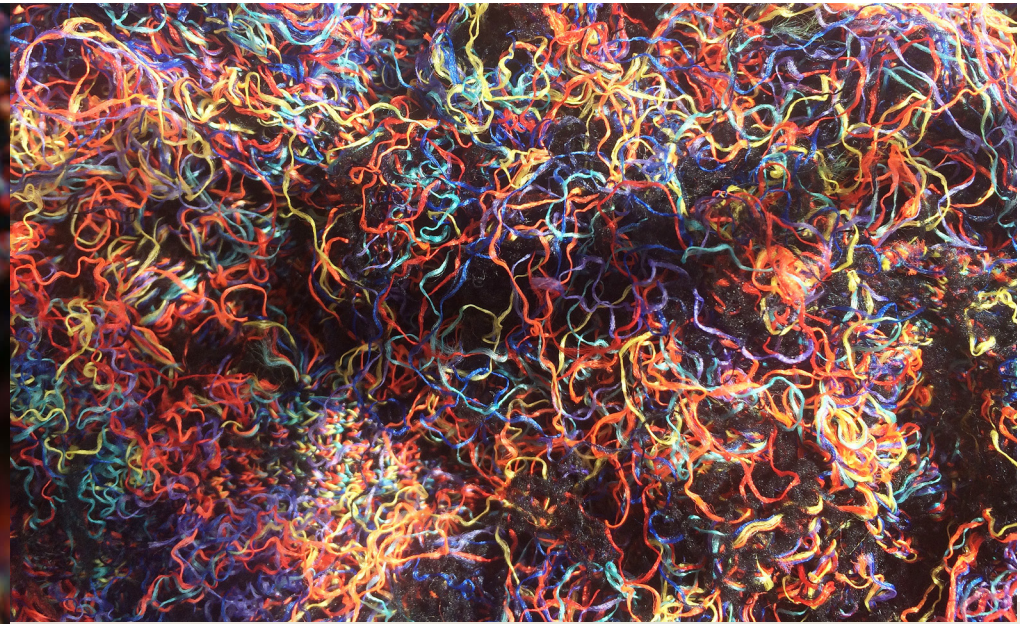












## 7.0 CONCLUSION

GENERALLY, IT IS NOT YET PROFITABLE TO SHIP WASTE (IN MY CASE, TO HERZOGENAURACH) AND PROCESS IT. HOWEVER, THIS ASPECT IS COMPENSATED BY THE FACT THAT ADIDAS HAS ALREADY PAID FOR THESE MATERIALS AND INVESTED IN THEM IN ORDER TO PRODUCE HIGH QUALITY PRODUCTS OUT OF A VARIETY OF RESOURCES. THUS, ADIDAS GETS FREE WASTE AND CAN AFFORD TO RECYCLE IT.

THE ESSENCE OF THIS WORK IS TO FIND NEW WAYS AND POSSIBILITIES FOR THE INDUSTRY AND GIVE IT THOUGHT-PROVOKING IMPULSES.

SO MANY BY-PRODUCTS END UP AS WASTE AND SO MANY RESOURCES UNKNOWINGLY END UP ON THE LANDFIELDS JUST BECAUSE THEY ARE LOOKED AT ONE-SIDEDLY.

BY LOOKING AT IT WITH DIVERSE PERSPECTIVES, I SUCCEEDED IN CREATING NEW CONTEXTS, WITHOUT ANY CHEMICAL CHANGES OR OTHER COMPLICATED EXPENSIVE PROCESSING TECHNIQUES; JUST BY THINKING OUTSIDE THE BOX.

I HAVE TALKED TO MANY INTERESTING AND MOTIVATED INTER-DIVISIONAL COLLEAGUES WHO HAVE GIVEN ME A LOT OF INSIGHT. I FOUND OUT, THAT SUSTAINABILITY IS MORE AND MORE BECOMING AN IMPORTANT MATTER FOR ADIDAS. EVERY DEPARTMENT HAS ITS OWN HOTSPOT AND GOAL IN ORDER TO WORK MORE SUSTAINABLY. DURING MY CONVERSATIONS, I FOUND OUT THAT MANY DEPARTMENTS ARE SEARCHING FOR SOLUTIONS FOR THEIR HOTSPOTS, HOWEVER, NONE HAS EVER REALLY THOUGHT ABOUT RETAIL CREATIONS. OBVIOUSLY, ADIDAS IS A SPORTING GOOD MANUFACTURER AND ITS MAIN FOCUS LIES ON SPORTING GOODS.

HOWEVER, HAVING THE OPPORTUNITY TO BECOME THE WORLD-WIDE LEADER IN THE INDUSTRY, AS A FRONT-RUNNER, ADIDAS NEEDS TO SET NEW STANDARDS. WITH THE POSSIBILITIES OF INDIVIDUAL INTERIOR DESIGN ELEMENTS, ADIDAS CAN ENHANCE ITS OWN PRODUCTS, DO STORYTELLING FOR ITS BRAND IMAGE AND MAKE THE WORLD MORE ALERT TO SUSTAINABILITY. BASICALLY, MY WORK IS A HIGHLIGHTING MEDIUM, WHICH GIVES THE CUSTOMER A SHOPPING EXPERIENCE IN STORES. THE INDUSTRY SHOULD GIVE MORE ATTENTION TO BY-PRODUCTS AS A FORM OF RESOURCE.

ULTIMATELY, IT COULD BE THE BEGINNING OF A MOVEMENT AND THE CREATION OF A SUSTAINABLE CYCLE.



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