

THE FUNDAMENTAL STORY HUB FOR DESIGN & PLAY

PLAY IS PART OF OUR CULTURAL HERITAGE

HUB FOR DESIGN AND PLAY

‘Only the best is good enough, for children deserve the best,’ declared Ole Kirk Kristiansen, the founder of the LEGO Group. This attitude and perception of children as human beings of equal worth is a persistent theme advocated by numerous Danish designers who have developed play experiences for children. The architect Poul Henningsen, a designer of children’s institutions, tried to create the best framework for playing and curious children in a safe environment. Kay Bojesen, the designer of wooden figures such as the monkey, the elephant and the parrot, wanted to give children products that felt good to the touch and smiling lines that promote play. Nanna Ditzel, the designer of Trissen, developed state-of-the-art play furniture based on her observations and care for children.

Today companies like bObles, Kompan, the LEGO Group, Monstrum and PlayAlive continue the tradition of designing playing experiences from the child’s perspective. The development is research-based, and many resources are spent to understand and create new knowledge about e.g. learning, development and the environment, with only one thing in mind: What is best for the children. One of the characteristics

of Danish design of playing experiences is that they are functional and well thought through, developing and expressing the notion that it is effortlessly easy. The whole story is not told ahead of time, and there is room for the children to use their imagination as an introduction to the play activity. In addition, the toys and the playgrounds can grow with the children as they are getting ready for new and larger challenges.

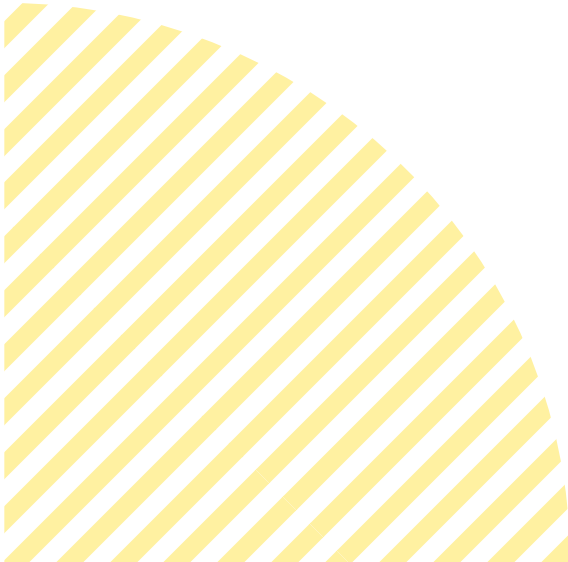
Looking into the future it seems as if there are many opportunities for developing and expanding Danish design of play. The society we live in is changing at lightning speed. The challenges of tomorrow differ from the challenges of yesterday. There will be more elderly people, and we will stay in the workplace longer. That means it is not only the children who need to learn, develop and be creative. We all do. If we take the concept Lifelong Learning seriously and accept that play is one of the best approaches to learning and being creative large potentials for creating new solutions open up. With a tradition based on quality, originality, and a deep insight into and interest in the needs of users we are embarking on a new chapter of the story of Danish design of play.

**“SO, WITHIN ALL THESE
SPHERES – PAINTING, SCULPTURE,
SKETCHING, MUSIC, SONG, DANCE,
GYMNASTICS, GAMES, SPORTS,
SPOKEN OR IN WRITING – WE WILL
BE ABLE TO PERFORM COMPLEX AND
SPECIALIZED FORMS OF RESEARCH
AND EXPERIMENTATION, AS MUCH
AS WE WANT THROUGHOUT
OUR LIVES”**

Desmond Morris, British zoologist, 1928—

THE FUNDAMENTAL STORY

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Danish design of playing experiences is characterized by high quality and well thought through and original solutions that support the development of competencies such as children's creative, motoric and social skills. The LEGO Group and Kompan are large, world-renowned companies, and new actors like bObles, Monstrum and PlayAlive have also made a breakthrough on the international market. But what is the reason Danish design of play has become such a powerful player? What traditions and values do we bring to the table? And how can we further develop and strengthen Danish design of play going forward?

DESIGN AND PLAY

Design and play have many shared characteristics. Play is incorporated into the designer's work process, when she alone, or together with others, imagines new possibilities and through experiments reaches new concepts in the form of drawings, words and models. It sounds easy and it is. Effortlessly easy. At certain times, of course. Most designers are familiar with wrinkles of anxiety when the ideas have to be tested. For play has to lead to a result, and the designer must relate to reality and what can realistically be accomplished.

It is the same thing when we play. There are certain given frameworks and there is room for imagination and new possibilities. Children are good at setting up rules for plays that have to be adhered to, e.g. a walk down the pavement becomes a game where the rule is that you cannot step on the lines. That means you have to adjust your steps, keep an eye on other pedestrians, dangerous light posts and other obstacles, and jump and dance when new lines suddenly appear around a manhole cover or a broken tile. Things that to others seem commonplace become filled with excitement and joy from the child's perspective.

In other words, the common denominator between design and play is that it is on the borderline between what is and what can be. Design and play are creative. The purpose of design is to create something new, whereas the purpose of play often is the play itself or the possibility of personal development. In designing play the designer is supposed to enjoy playing along the way. Talking about the creative process, the architect Jørn Utzon has said that it is not a matter of having the courage but of having the desire. Design and play share a process based on desire.

**“THE CREATION OF
SOMETHING NEW IS NOT
ACCOMPLISHED BY THE
INTELLECT BUT BY THE
PLAY INSTINCT”**

Carl Jung, Swiss psychoanalysis, 1874–1961

DESIGN, PLAY AND LEARNING

Play makes us stretch ourselves. The Russian psychologist Lev Vygotsky has said that when children play they are always older than their age – it is as if they are a head taller than they really are. That is because children will naturally reach out for challenges that go beyond what they have previously accomplished. In his book *Play, Learning and Creativity: Why Happy Children are Better Learners* the psychologist Hans Henrik Knoop described this phenomenon as Flow. The concept was coined by the American psychologist Mihaly Csikszentmihalyi and describes the state in which we are totally consumed with a game or a task, where we forget where we are and what time it is and fully exploit our learning potential. When we are in flow there is a natural balance between challenges and abilities. When we feel that our abilities and competencies are insufficient compared to the challenges we face we become stressed and anxious. We are afraid we cannot do it. Conversely we become bored if the challenges are too limited compared to our abilities, e.g. if we are repeatedly given the same task.

Generally children are good at finding challenges that fit their abilities and level of capabilities. They follow their desire, test and experiment, and little by little they naturally push the limits for what they can do. A little higher, a little bigger, a little more difficult. Several Danish companies design toys with an in-built scope and a possibility of development that makes the toy 'grow with the child' so to speak.

Take the LEGO brick, the pivotal point of the LEGO Group, which has the same shape as when it was launched in 1958. No wonder it has twice been named the toy of the century. The coupling principle with tubes inside the brick and the high degree of precision makes it unique and provides endless construction possibilities. Obviously the LEGO brick is not a play activity in itself; it is just a piece of plastic with knobs, but by using multiple brick the child can create its own play activity based on its imaginary universe, its abilities, and its desires. This may result in many hours of play which fits naturally into the player's need and level; it is the child that creates the play activity, the story and the experience, not the brick or the designer of the product.

The company PlayAlive also thinks in terms of flow when designing playing experiences for children. In addition to bringing children of all ages together PlayAlive's playgrounds can adapt to the children's level of ability and individual interests. These are physical playgrounds which use in-built technology to offer active games and playing option for children of all ages.

A satellite registers the development in the game and updates the level between challenges and competencies so that the game stays on an energetic level and does not become either

too difficult or too easy for the participants. For example, if the satellite measures that the participants are generally too slow for the game it changes the settings to better fit their level of play. The goal is to give children the desire to play and stretch themselves in the process. They learn new things and they come to know themselves and their own limits and possibilities.

**“THE CHILD LOVES TO PLAY.
NOT BECAUSE IT IS EASY, BUT
BECAUSE IT IS DIFFICULT”**

Benjamin Spock, American pediatrician, 1903—1998



DESIGN, PLAY AND EQUALITY


The Danish society is one of the least hierarchical in the world. The social experiment we have performed means a considerable redistribution of public resources in society. The Danish educational and welfare systems are available to everyone and contribute to a fundamental feeling of security. We have a tradition of solving problems together across disciplines and social divides. All the way through their school years children are trained in that concept working together in groups and learning social skills. This equality is also evident in the relationship between adults and children. We have a pronounced respect, confidence and sensitivity

to children. They should have the same quality in their clothes, furniture, means of transportation and toys as adults have. This notion was formulated as early as 1934 by Ole Kirk Kristiansen in the name “LEGO” which is a contraction of the words LEG + GODT (play + well in Danish), hence expressing his belief that **“only the best is good enough – for children deserve the best.”**

The perception of children as independent and equal individuals also means that they are part of the decision making from the time they are small, e.g. regarding what they eat, what gifts they receive etc. Children are often well

**“CHILDREN SHOULD NOT
BE TREATED LIKE CHILDREN
BUT LIKE EQUAL HUMAN
BEINGS”**

Poul Henningsen, lighting designer, architect and writer, 1894–1967



informed and adults listen to them and involve them in decisions. This is evident both in the home environment and in the public sphere. At home children have become much more visible than they used to be. They play all over the house, and when you visit a family with children you will see that toys are not restricted to the children's rooms, they are all over the house, and many children have their own play installations and furniture.

Danish children's furniture is not just miniature grown-up furniture. Rather designers take their point of departure in the children's imaginary world and needs and use play to arrive at entirely new solutions. A valid example is the stool and table designed by Nanna Ditzel in 1962, designed as a reel (sometimes called toadstool tables), hence the name 'Trissen' (Danish for reel). The furniture was designed for a kindergarten, and Nanna Ditzel knew that children rarely sit down for very long and often stand on the chair, which makes it fall over. She therefore realized that the chair should not be a traditional chair with back and arm rests.

Instead she designed the Trissen, which can be stacked, rolled and played with in many ways. And, as Nanna Ditzel had demonstrated, the furniture can be used for the rest of your life as a side table or a night stand.

Similarly, in their furniture series 'bObles', which was launched in 2006, the architect Bolette Blædel and the garment designer Louise Blædel try to design from a child's point of view. 'bObles' is a series of multi-functional tumbling furniture which appeals to play, creativity and physical expression promoting the children's motoric and sense-based development. At the same time the furniture is designed so that adults feel like inviting them into their home – the ant eater, the frog, the crocodile and many other products have a simple and inviting design. By insisting on high quality in children's products 'bObles' follows in the proud Danish design tradition of the LEGO Group and Nanna Ditzel, and the sisters have created a furniture concept that has been recognized with several international design prizes and is exhibited at museums around the world.

DESIGN OF SPACE FOR PLAY

Also in the public space it is evident how we in Denmark perceive design experiences as 'serious fun'. As early as 1931 the garden designer C. Th. Sørensen had the idea of a 'junk playground' where children could exploit their creative ability to build and play with old cars, boxes and wooden boards. In 1948 the lighting designer and architect Poul Henningsen designed a factory kindergarten the goal of which was to support children in their physical, psychological and social needs. The basic idea was to create an architectural framework that fit the children's scale, where creative, playing and curious children could feel secure and gradually move out in larger and larger circles. Children should be treated equally and with as much freedom as possible. The kindergarten's interior design accommodated younger and older children, who could move effortlessly across the departments; cupboards and shelves were placed within the children's reach, and the colour spectrum was new as well; e.g. all pipes and radiators were painted orange-red, which Poul Henningsen believed would appeal to the children's imagination. There were corners for play with dolls and play with trains and plenty

of floor space that lent itself to leisurely play. The outdoor areas offered numerous opportunities for different activities, e.g. a sledding hill, a spiral-shaped road, a gazebo, a sandbox, an open-air theatre, a greenhouse, and a lake for sailing and paddling.

Within the last 40 years the development of children's playgrounds has taken off. The need for playgrounds has increased commensurate with the increase in the number of roads, housing developments and traffic, which means that in many areas it is difficult for children to move around safely on their own. You can still find the natural area with a swing set and large car tires, but they are not the only ones any more. Companies like Kompan, Monstrum and PlayAlive have each made their mark on the development and paved the road for a whole new universe of outdoor play experiences.

Kompan was founded in 1970. Most people know and have tried the vividly coloured sculptural elements made of high-quality materials designed for the safety of children; but few people know that the idea originated accidentally.

“IT IS JUST AS IMPORTANT FOR US WHERE OUR HEAD IS AS WHAT IS INSIDE OUR HEAD”

Keld Fredens, Danish doctor and brain researcher, 1945—

One of the founders, the artist Tom Lindhardt, had a colourful sculpture installed in a residential area. He discovered that the sculpture was not only admired, but was incorporated into children's play. This led to the idea of designing new playground equipment. Today Kompan is a market leader within the field of solutions for outdoor playgrounds, and the company has received much praise and numerous prizes. The basic idea is to promote children's development through play while also improving their health and learning. The Kompan universe consists of a series of different playground models geared at different age groups and different types of play, e.g. role play, sports, balancing games, and climbing games.

Monstrum is a more recent player within the field of playground design. In 2012 the company received the Danish Design Award for its Tower Playground in Fælledparken (a public park in central Copenhagen) inspired by the many church towers of Copenhagen. A local blogger called it 'crazy good'. (PlayAlive was also a recipient of the prize, since it developed the electronic play units for the roofs

around the stock exchange tower). Before the playground was finished you could see children climb over the fence to play because – just as in the case of Tom Lindhardt's sculpture – they just could not help themselves. The design is sensuous and immediately inspiring and inviting. Monstrum's playgrounds are based on easily recognizable themes and stories appearing as set designs which can inspire children and also relate to the space they are placed in. As the founders, visual artist Ole B. Nielsen and the designer Christian Jensen say, **“why play on a monkey frame when you can play in a moon rocket, a submarine, a giant snail shell, a clown's head, a Trojan horse, an egg, an ant, or a factory?”**

DESIGN, PLAY AND KNOWLEDGE

A characteristic feature of most Danish companies who earn their living designing playing experiences for children is that they are based on research and knowledge. They realize the importance of understanding children's needs and development and the ability to imagine their universe. An example is Kompan's 'Kompan Play Institute' where most of the company's knowledge about playgrounds is generated

and which functions as an internal knowledge centre for the company. For many years the LEGO Group has had a large in-house research department, and the company also collaborates with schools, kindergartens, and universities in Denmark and abroad. This cannot be taken for granted. But there seems to be a general consensus that Danish design of play has to have a solid, knowledge-based foundation.

**“IF A HUMAN BEING IS TRULY GOING
TO SUCCEED IN TAKING ANOTHER HUMAN
BEING TO A CERTAIN PLACE IT IS OF
THE UTMOST IMPORTANCE TO FIND HIM
WHERE HE IS AND START THERE”**

Søren Kirkegaard, Danish philosopher and writer, 1859—1855

Søren Kirkegaard has said that helping others involves humility and patience. You cannot feel superior to others and rule over them; you have to make an effort to understand them where they are. And it certainly requires patience to embrace the complexity involved in designing playing experiences for children. It requires user involvement and user observation, tests, knowledge about the various developmental stages children go through, but also knowledge about play and learning, including pedagogical approaches, knowledge of materials, rules, safety, new technology, environmental issues and sustainability. The list is long, and experts can undoubtedly add to the list.

Considering this complexity it is interesting to see how Danish companies have achieved surprisingly simple and original solutions. It appears as if, once they have analysed all the required elements, they change track and say ‘what is the minimal requirement?’ Much Danish design and architecture in general is characterized by simplicity and functionality giving the impression that it is effortlessly easy. The complexity is gone. What remains is the original solution.

The advantage is that there is room for spontaneity and surprise. Everything has not been told beforehand. As exemplified in bObles’ and Kompan’s simple design there is room for children to use their imagination as an introduction to the game. The latter is quite important. The child needs to be motivated in order for the game to be meaningful. Children’s interests vary as much as other people’s, so it is crucial that playing provides room for the child to naturally find its own unique approach. It is necessary to focus on each individual’s foundation in order to make a difference. As Kirkegaard said, you have to listen to the other human being in order to know where it is – and as a designer of play one needs to listen to many different needs and interests.

DESIGN, PLAY AND LIFELONG LEARNING

Previously it was important that children and adolescents learned at least one trade or discipline in order to survive as adults. This still holds true today; however, since most of us will remain in the workplace for a long time and since tomorrow's challenges and opportunities are totally different from yesterday's the ability to change and learn new things along the way becomes even more important. We automatically associate the concept of play with children, but adults also need to learn and develop, and, if we are lucky, we can continue to play our whole life. It means that one of the most important things we can give our children is the ability to learn to learn – and do it happily. We can also support them in their desire to be creative – for that is one of the competencies that will be most thought after in tomorrow's society, according to most predictions.

The Swiss philosopher Jean Piaget has said that if a person wants to be creative he has to remain partially a child, with the creativity and inventiveness characteristic of children before they are deformed by the adult society.

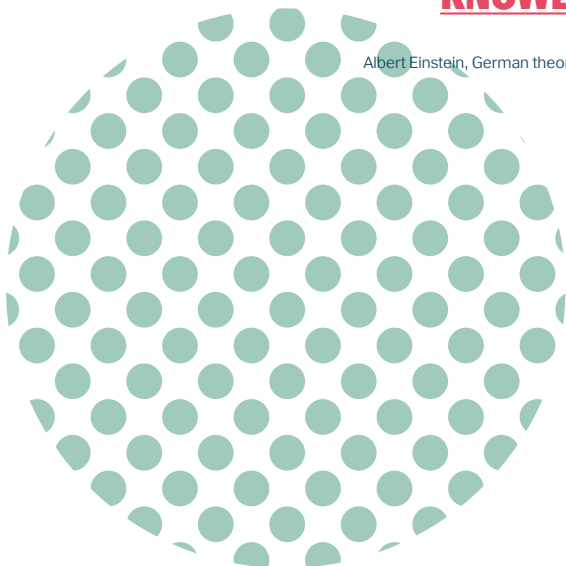
Jean Piaget lived most of his life in the 20th century and refers to the socialization process that tears imagination out of a person and favours the factual, the unimaginative and the rational. But it does not have to be like that in the 21st century. We have the opportunity to learn from children's way of learning through play and build on this approach to the world, also in the adult life. We can thoroughly consider the ways in which we stimulate creativity, play and learning, both in children and in adults.

Thus there is ample opportunity for expanding design of play going forward. Design of play for new age groups, design of play for new markets – and design of play that promotes the development of new competencies and abilities in children and adults. Imagine an expansion of senior playgrounds, where elderly people can meet and strengthen their muscles through play, either alone or with others. Or integrated playgrounds for different age groups that can be used by several generations simultaneously. There are already many games that can be played by adults as well as children.

What types of toys can establish contact and learning in the child and in the adult while they play? If we take the concept of Lifelong Learning seriously and accept that play is one of the best approaches to learning, then a string of new development opportunities for design of play will undoubtedly open up.

**“IMAGINATION IS
MORE IMPORTANT THAN
KNOWLEDGE”**

Albert Einstein, German theoretical physicist, 1879–1955





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