

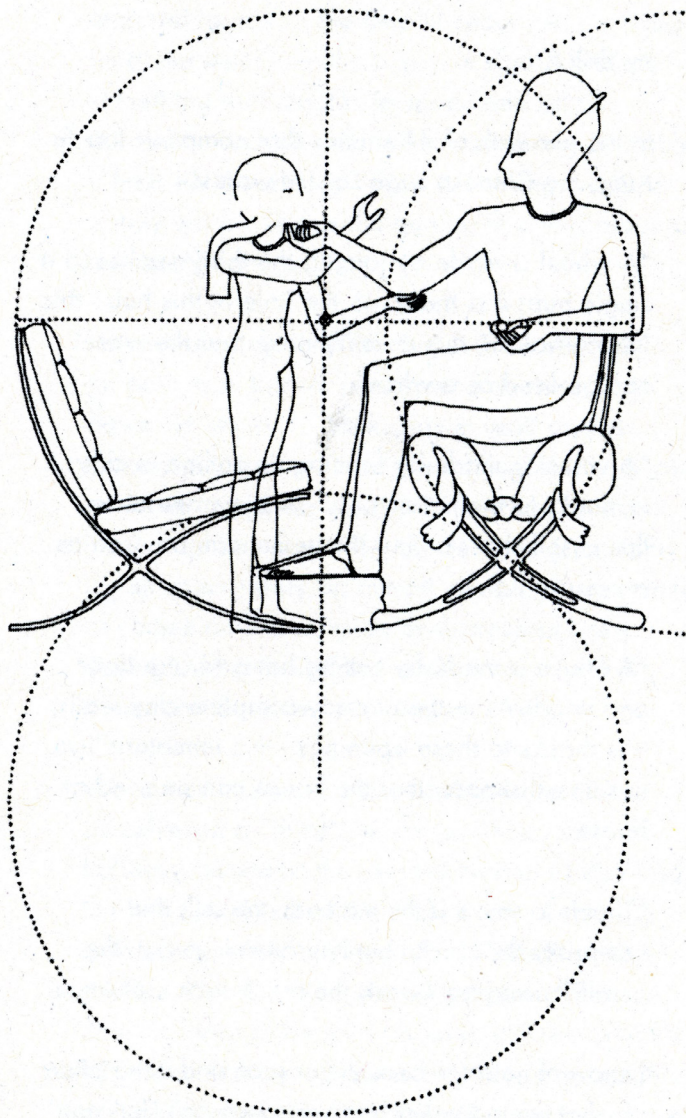
STOLEN I RUMMET – RUMMET I STOLEN
SPACE – IN AND AROUND THE CHAIR
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STOLEN I RUMMET – RUMMET I STOLEN SPACE – IN AND AROUND THE CHAIR

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STOLEN I RUMMET – RUMMET I STOLEN ¹

SPACE – IN AND AROUND THE CHAIR ¹

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I sit elvte af i alt enogfirsindstyve lærestykker Tao Te King, skriver den kinesiske vismand LaoTse:

”Man laver et hjul, idet man samler de tredive eger i ét nav; det er takket være hullet i dette nav, denne ustoflighed, uselvished, at hjulet kan bruges som hjul.”

”Man laver et kar, idet man danner dets omrids i ler; det er takket være hulheden, takket være denne ustoflighed, uselvished, at karret kan bruges som kar.”

”Man laver et hus, idet man skærer døråbning og vinduesåbninger ud i de allerede færdige lervægge; det er takket være disse åbninger, takket være denne ustoflighed, uselvished, at huset kan bruges som hus.”

”Altså er det ganske vist stoffet, selvet, som udgør redskabet, men det er det ustoflige, det er uselvisheden, som gør, at redskabet bliver nogen nytte til.”

Jeg kender ikke smukkere og dybere beskrivelse af det, vi i dag alt for snævert kalder funktion. LaoTse's enkle tekst omfatter såvel den fortællende, stoflige form, som det formidlende rum. Samtidig udvides den mekaniske funktion til noget, der udfolder sig i rummet og får varighed gennem brugen. Når noget kan bruges, føles det livsbefordrende. Når noget fungerer, fungerer det blot. Redskabers brugskvalitet fordrer således både nyskabelse og livsduelighed.

Der findes mange slags stole. Fælles for dem alle er, at de har som formål at bære en person, der beslutter sig for at sætte sig. For at hvile eller for at virke. Allerede dette unddrager sig rationel forklaring, og selv om vi århundredet igennem har afprøvet funktionsbegrebet, er vi ikke kommet sandheden nærmere af den grund. Når vi tænker over om vi sidder godt, sker det besynderlige, at så såre tanken er tænkt, bliver vi svar skyldig. Vi sidder stort godt på hvad som helst, afhængig af varigheden og omstændighederne naturligtvis. Under en lang tur i skoven, kan en sten eller en stub være et herresæde.

Vi har fysisk behov for en gang i mellem at befinde os i en ”tredje” rumlig position. Vi finder det nødvendigt at udskifte dagens lodrette bevægelighed med nattens vandrette hvile. Denne ”tredje” position er det sidderedskabets opgave at udfylde. Stolens eneste objektive formål. Mere kan der ikke siges om det, resten består stort set af illusioner. Drømme og forestillinger, sympatier og antipatier. Ikke fordi der er noget i vejen med drømme og forestillinger. Jeg ønsker kun at præcisere, hvor det objektive hører op, og det subjektive be-

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In the eleventh of 81 studies that comprise Tao Te King, the Chinese sage LaoTse writes:

“A wheel is made by joining the thirty spokes to a single hub; it is thanks to the holes in this hub – this immaterialism, this unselfishness – that the wheel can be used as a wheel.”

“A vessel is made by forming its outline in clay; it is thanks to the hollowness – this immaterialism, this unselfishness – that the vessel can be used as a vessel.”

“A house is made by cutting holes for the door and windows in the already complete clay walls; it is thanks to these openings – this immaterialism, this unselfishness – that the house can be used as a house.”

“That is to say, it is the material, the self that comprises the article, but it is the immaterial, the unselfishness, that invests the article with usefulness.”

I know of no more beautiful or profound description of what we today much too narrowly call “function”. LaoTse's simple text covers both the descriptive, material form and the helpful space. At the same time, the mechanical function is expanded into something that unfolds in space and attains durability through use. When something is useable, it feels life enriching. When something works, it simply works. The useful quality of a tool requires creation and viability.

There are many kinds of chairs. Their shared purpose is to bear a person who decides to sit down. To rest or to work. This in itself eludes rational explanation and even though for centuries we have tested the concept of function, this has not brought us any closer to the truth. Generally, we sit comfortably on almost anything, depending of course on the duration and the circumstances. During a long woodland walk, a rock or tree stump can be a veritable throne.

We sometimes have a physical need to place ourselves in a “third” spatial position – one halfway between the vertical motion of day and the horizontal rest of the night hours. Seats are created to satisfy this need for a “third” position. It is the chair's only objective purpose. There is nothing more to be said about it; the rest consists largely of illusions. Dreams and ideas, sympathies and antipathies. Not that there is anything wrong with dreams and illusions. I simply wish to establish where objectivity ends and subjectivity begins – for the designer and for those who use his designs. In reality, only a minutely small proportion of the population wish to use the newest discoveries. The majority follows their own dreams and ideas.

gynder. For formgiveren og for de mennesker, der skal bruge hans formgivning. Realiteten er, at kun en forsvindende lille del af befolkningen ønsker at bruge de nyeste landvindinger. Den resterende del følger egne drømme og forestillinger.

Drømmen om at lave universelle redskaber er forståelig – og til en vis grad nyttig, men selvfølgelig en illusion. Redskaber kan aldrig blive universelle i den forstand, at alle til alle tider vil bruge dem, men redskaber kan ofte indeholde principielle kvaliteter.

Til gengæld er forestillingen om at kunne lave redskaber alene ud fra rent objektive, funktionelle kriterier ikke alene illusorisk, det er også farligt, fordi man dermed gør krav på at besidde sandheden. Illusionen består i troen på endegyldigt at kunne tænke sig eller ligefrem regne sig til formen. I stedet for at søge sandheden, sætter man sig på den. Sandheden søger man, fordi det er nødvendigt – ikke at finde den – men at søge den.

Jeg påstår, at der ikke findes funktionelle sandheder. Ingen facitlister. Intet sikkerhedsnet, men der findes regler. Regler – som for alt kunstnerisk arbejde. Reglerne er virkeligheden, som det er formgiverens arbejde at fortolke og nuancere. Ikke for at lave forbrugsgoder, men for at indvinde brugskvaliteter.

Der findes mange forskellige mennesker. Store og små, tykke og tynde. Men fælles for os alle er, at vi er bevægelige væsener, og at vi er proportioneret efter de samme regler.

Stolens formål er at virke som redskab for kroppens behov for rumlig variation. – Nu dukker der med mellemrum folk op med budskaber om, at de har fundet facitlisten for, hvordan man bør lave stole. En facitliste der vel at mærke er en smule anderledes end den forrige. Det værste er, at facitlister meget hurtigt opnår profetistatus ved at ændre en vinkel på et stolesæde eller en ryg nogle få grader. Problemet er, at facitlister forveksles med regler, dermed overses, at mennesket er et dynamisk væsen i konstant bevægelse – også når det sidder. Den stillesiddende position med nøjagtige vinkler er undtagelsen. Det er bevægelsen og friheden, der er reglen. Stole, hvor kroppen anbringes ophængt knælende i stativer, er en misforståelse, idet kroppen fastlåses – desuden er de grimme, fordi kroppen bliver unaturlig. Det er muligt, at ryggen bliver tvunget lige, men noget påtvunget bliver altid grimt. Disse stoletyper, som vi sikkert ikke har set det sidste af endnu, har dog haft den udmærkede virkning, at de henleder opmærksomheden på, hvor gode brugskvaliteter almindelige stoletyper har.

Når man fra mange sider skyder skylden for dårlige rygge over på almindelige uskyldige stole, er der selvfølgelig et gran af sandhed i kritikken – ét gran. Det gran, der skal til, for at dølge vores dårlige

The dream of making universal utensils is understandable – and to a certain degree useful. But it is, of course, an illusion. Utensils can never be universal in the sense that everyone will always use them. Utensils can, however, often embody fundamental qualities.

On the other hand, the aspiration to make utensils based purely on objective, fundamental criteria is not only illusory; it is also dangerous, because it requires the designer to be in possession of truth. The illusion is based on the belief in a definitive ability to think or simply calculate your way to a form. Instead of seeking the truth, one sits on it. One seeks the truth because it is necessary – not to find it, but to seek it.

I do not believe that functional truth exists. There are no ready-made lists of answers. No safety net. But there are rules. Rules – as in all artistic work. The rules are the reality which it is the designer's task to interpret and to attribute nuances. Not to create consumer goods but to capture useful qualities.

There are many kinds of people. Large and small, fat and thin. Our common denominators are our mobility and that our proportions follow a single set of rules.

The purpose of a chair is to be an object that satisfies the body's need for spatial variation. From time to time, people assert that they have discovered the definitive recipe for designing a chair. A recipe which, please note, is slightly different from the previous one. The worst of it is that this recipe quickly achieves the status of a prophecy based on altering the angle of the seat or backrest a few degrees. The problem is that recipes are mistaken for rules, neglecting the fact that human beings are dynamic creatures, in constant motion – even when sitting. A static position with precise angles is the exception. Movement and freedom are the rule. Chairs that maintain the body in a static, suspended kneeling position are a misconception, since the body is locked into position. They are also unattractive because the body seems unnatural. Perhaps the spine is forced to be straight, but something that is forced is always unattractive. We have undoubtedly not heard the last of these chairs, but they have had one excellent consequence in that they have focused attention on the exceptionally useful qualities of ordinary chairs.

Because so many people from different walks of life blame innocent, ordinary chairs for back problems, there must be a grain of truth in this criticism – just one grain. It is the grain we need to appease our bad conscience. We live incorrectly. We sit incorrectly, not because of the chair but because we sit for too long. We watch too much television. We lounge about in spongy easy chairs and go to bed late. We eat too much of the wrong things. In short, we have become slaves of comfort and habit.

samvittighed. Vi lever forkert. Vi sidder forkert, ikke på grund af stolen, men fordi vi sidder for længe. Vi ser for meget TV. Vi flyder i svampestolene og går for sent i seng. Vi spiser for meget, og forkert – kort sagt vi er blevet slaver af magelighed og vaner.

Hvis noget skal ændres, må det være vores livsrytme og dermed også arbejdsrytmen. Ergonomisk korrekte stole til specialiseret arbejde er livsfjendske, fordi de i deres fastlåste korrekthed skaber den illusion, at kroppen kan fungere som en tidløs maskine.

I skolen kunne man starte med at indføre flade taburetter uden ryg. Det ville uden tvang lade børnene bibeholde kroppens medførte frihed og fine balance.

Udover behov for bevægelse har kroppen størrelse og form. Sætter man sig ret op og ned på et plan, hvis højde over gulv er en fjerdedel af egen højde, og lader armene danne en cirkel foran kroppen, indeholder man sig selv i et cylindrisk rum, hvis højde er tre fjerdedele af egen totalhøjde, og hvis diameter svarer til den "personlige" alen, som igen er en tredjedel af totalhøjden. Prøv – og mål selv efter.

Dette er det nærmeste, man kan komme en regel om kroppens siddende målmæssighed, og det skal understreges, at reglen blot beskriver et princip og hermed afgrænser nogle ydre rum, inden for hvilke al målsætning af stole foregår. Fortolkningens nødvendighed åbenbares af de tilsyneladende mange stolyper, der findes. Jeg siger tilsyneladende, for i virkeligheden findes der kun ganske få med store størrelsesmæssige variationer. Det er i nuanceringen, forskellene opstår. Det skal også understreges, at de bedste typer netop forholder sig klart til menneskekroppen, ikke bare i størrelse men i høj grad også i udtryk. Den måde stolen udtrykker det rum, det siddende menneske fortrænger, bliver således en vigtig side at den kunstneriske grammatik, en arkitekt og stolemager må overholde. Jeg skal senere komme ind på dette. Jeg må understrege, at jeg i det følgende kun anvender alenmål (dansk) og fod (engelsk). Det kan synes mærkeligt i denne decimale tid, men det skyldes den omstændighed, at metersystemet fikserer på det nøjagtige tal, mens de gamle mål beskri- vende forklarer forhold. Kroppens forhold. Hensigten er altså at forskyde interessen fra den abstrakte tanke til den konkrete følelse, bort fra den pedantiske nøjagtigheds tyranni.

If anything should change, it is our rhythm of life and therefore also our working rhythm. Ergonomically correct chairs for specialist work are inimical to good living because their fixed correctness creates the illusion that the body can function like a timeless machine.

A start could be made at schools by introducing flat stools without backrests. This would automatically allow children to retain the freedom and fine balance their bodies were born with.

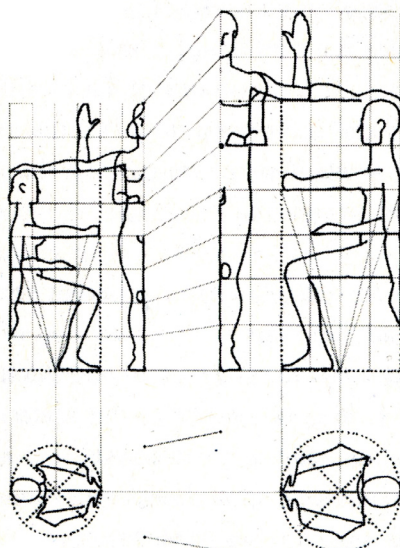
Beside the need for movement, the body has size and shape. If you sit straight up and down on a flat surface, at a height above the floor of one-quarter of your own height and let your arms form a circle in front of your body, you encompass yourself in a cylindrical space with a height three-quarters of your own total height and with a diameter equal to the Danish "alenmål" (a personal measure equal to one third of your total height). Try it – and measure it out yourself.

This is the closest we can come to a rule for the body's measurements when seated. And it has to be stressed that this rule simply describes a principle and thereby delimits a space within which the chair fulfils its purposes. The need for interpretation is obvious, given the apparently numerous kinds of chairs that exist. I write "apparently" because in reality, only a few vary greatly in terms of size. It is the nuances that create the differences. It should also be emphasized that the best chairs actually bear a clear relation to the human body, not simply in size, but also to a high degree in expression. The chair's expression of the space the seated person requires thus becomes an important aspect of the artistic rules an architect or chair designer must respect. I shall come back to this later. At this point I should explain that I have used only the "alenmål" and English feet in what follows. This may

seem strange in the decimal age, but I have done so because the metric system focuses on precise figures, whereas the traditional measurements describe proportions. Proportions of the body. My aim is thus to deflect interest from the abstract thought to the concrete feeling – away from the tyranny of pedantic precision.

There are many kinds of space. It could also be claimed that there is only one kind of space, because it is the way we divide, limit, encompass or exclude cohesive space that determines the space we have at our disposal. The spatial characteristics, spatial expression and useful spatial qualities we achieve.

Apart from the state of weightlessness in empty space, which most of us hardly ever experience, we are always touching something solid with our



Der er mange slags rum. Man kan også hævde, at der kun findes et eneste rum, for det er måden vi opdeler, afgrænser, inddrager eller udelukker det sammenhængende rum på, der er afgørende for det rum, vi får. Hvilke rumkarakterer, rumlige udtryk og rumlige brugs-kvaliteter vi opnår.

Bortset fra den vægtløse tilstand i det tomme rum – der er en sjælden tilstand for de fleste af os, berører vi altid noget solidt med kroppen. Dette er vigtigt for at erindre sig, fordi forestillingen om universets tomme rum og vores placering på jordoverfladen er grundlaget for vor opfattelse af op/ned – vandret/lodret – tyngde/lethed. Disse forestillinger videreføres i det landskabelige rum. Skovens lette, opsplittede og lukkede rum, der vandret begrænses af horisonten og lodret af himmelhvælvet. Alle disse egenskaber danner forestillinger om åben/lukket – lys/mørke og videreføres i byens rum, som rytmisk varierer imellem snævre, lange gaderum, åbne lyse torve, og lukkede, mørke gårdum.

I husenes rum bygger vore sanser videre på disse rumlige variationer. Rummet er den egentlige uforanderlige realitet. Tingene vi placerer i rummet, er den foranderlige, flygtige virkning.

Jeg husker fra min studietid en tegnelærer, der sagde: "prøv at se rummet mellem stolens faste dele – og tegn dét". – Jeg fattede intet, og kom med indvendinger. "Ja, men gør det nu alligevel", sagde han.

Tilbage til LaoTse. Han beskriver to egenskaber ved rummet. At det er ustofligt er umiddelbart forståeligt. Men hvad mener han med uselvisk. Selv fortolker jeg uselvisk som værende til rådighed og dermed brugbar. Hjulets nav er et brugbart rum – karrets hulhed er et brugbart rum – husets indre er et brugbart rum vel at mærke, hvis vi skærer døre og vinduer ud. Gør vi ikke det, er der intet rum, vi får et indelukke, eller nærmere et udelukke, et negativt rum, fordi det ikke kan opleves – ikke bruges.

En væsentlig kvalitet ved rum består altså i at inddrage. Vi inddrager os selv med vore omgivelser. Vi inddrager vore genstande i rummet, når vi placerer dem i forhold til os og til hinanden. På den måde inddrages og formidles rum og hermed nye kvaliteter. I de følgende betragtninger, hvor en række karakteristiske stolyper vurderes, er der ikke taget særligt hensyn til den historiske kronologi. Det, der har bestemt valgene, er måden en stol fortsætter ud over sig selv

bodies. It is worth reminding ourselves of this because our position on the Earth's surface is the basis of our perception of up/down, horizontal/vertical and weight/lightness. These ideas are repeated throughout the spatial landscape. The light diffused and enclosed space of the forest, with its horizontal perspective interrupted by vertical tree trunks and enclosed above by the treetops. The infinite space of the field, defined horizontally by the horizon and vertically by the heavens. All these qualities create an impression of open/closed, light/dark that pervades urban space as rhythmic variations between long narrow streets, light open squares and dark enclosed courtyards.

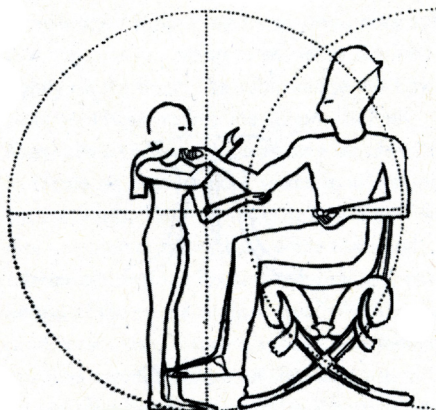
Inside a building, our senses continue to build on these spatial variations. Space is the true, unchanging reality. The objects we put in space create the changing, transient effect.

From my student days, I remember a design teacher saying, "Try to see the space between the fixed parts of the chair. Now draw it." I didn't have a clue what he meant and objected. "Yes, but do it anyway," he said.

Back to LaoTse. He describes space as having two qualities. That it is immaterial is immediately understandable. But what does he mean by unselfish? I interpret unselfish to mean available and thereby useful. The hub of a wheel is a useful space. The hollow in a vessel is a useful space. The interior of a house is a useful space – provided that we can cut out doors and windows. If we do not, there is no space. All we have is an enclosed, or rather, excluded space. It is a negative space because it cannot be experienced – or used.

Thus, an important quality of space is the fact that it encompasses. We encompass ourselves in our surroundings. We encompass our possessions in space when we position them in relation to ourselves and to each other. By these means, we involve ourselves with space, exploit it and endow it with new qualities. No particular regard has been paid to chronology in the following reflections, in which a number of characteristic chair types are evaluated. Their choice has been determined by the way the chair is enhanced when a person sits in it and by how it influences the space it requires.

The Egyptian folding chair, the throne of the pharaoh Rameses, elevates a person above the floor and it does so with precision. If the lines of the two curved crosspieces are continued, they form two circles, which both form a tangent with the floor and precisely



Egyptian folding chair, 1200 B.C.
Ægyptisk foldestol, 1200 f.Kr.

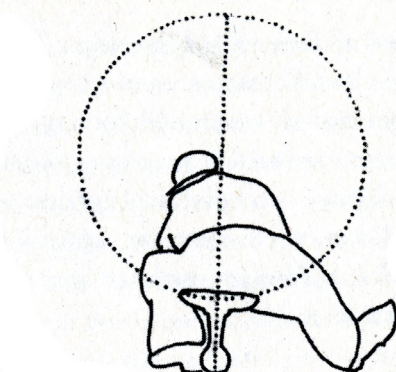
på, når der sidder en person i den, og hvordan den påvirker det rum, den fortrænger.

Den ægyptiske foldestol hæver personen op over terrænet, og den gør det med præcision. Hvis linierne i det krumme kryds fortsættes, vil man se, at der dannes to cirkler, der ud over at tangere terrænet, nøjagtigt omslutter den siddende Ramses. Der opstår to cylindre med diametre på 5 fod, som skærer ind i hinanden og danner et fortættet rum om Ramses torso.

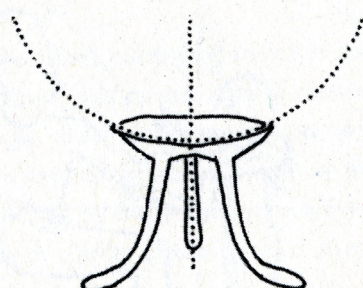
Den ægyptiske stol er herskabelig, mens brolæggerstolen, der kendes som arketype overalt på kloden, er redskabelig. I den hjemlige udgave drejer kuglen sig i terrænet og skyder brolæggeren op på sædeskiven, og giver ham fuld rumlig frihed. Han kommer til at sidde i en løftet sfærisk, bevægelig kugle.

Det er slående, hvor meget Poul Kjærholms møbler er i slægt med de ægyptiske. Det er den samme stramhed og ynde, der behersker dem. Den sikre trepunktsunderstøtning hæver en imaginær kugle op, der indeholder den siddende torso, mens benene støtter let med terrænet. I den ægyptiske støder understøtningen op i kuglen. I Poul Kjærholms bøjer den af, så der skabes et overgangsrum, den sfæriske kugle flyder i. Herved opstår der en lethed og bevægelighed, der bekommer skallen godt, samtidig med at det lille mellemrum bliver en sammenpresset spejlvendt gentagelse af rummet ved terrænet, som i stor målestok jo også er en kugle. Følelsen af det fine møde mellem kugleskal og de tre punkter fornemmes bedst, hvis man forestiller sig en skål, hvilende på tre fingre. Rummet som trefoden beskriver med de organiske momentkurver, samles stramt i det stive, lodrette og triangulære prisme, som igen mildnes af de tre fingre, der på blomsten lader skallen duve blidt men sikkert. Udvendigt lader læderet ane skallens muskulatur, men den dyriske hud kommer den siddende til gode i det blødere, indvendige ophæng. Den

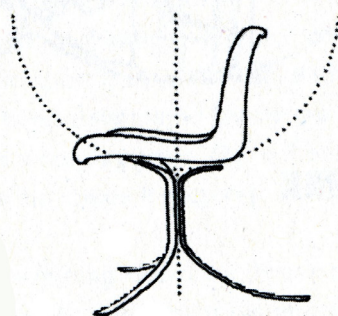
encompass Rameses' seated figure. Two horizontal cylinders are created, five feet in diameter, which intersect each other to form an enclosed space around Rameses' torso.



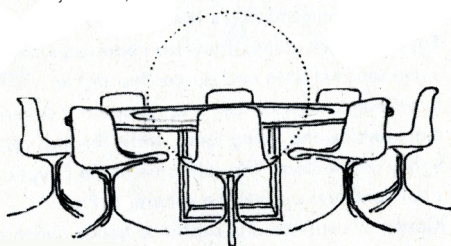
Paviour's stool
Brolæggerstol



Egyptian stool
Ægyptisk taburet



Poul Kjærholm, 1960



Poul Kjærholm, table and chairs, 1960-1963
Poul Kjærholm, bord og stole, 1960-1963

The Egyptian throne is majestic, whereas the paviour's stool – known throughout the world in its archetypal form – is a tool. In the Danish model, the rounded foot rotates on the ground, giving the paviour full spatial freedom. He sits in a raised, mobile sphere.

Poul Kjærholm's furniture is strikingly similar to its Egyptian equivalents. They are endowed with the same succinct lines and grace. The stable, three-legged support bears an imaginary sphere that contains the sitting torso, while the legs rest lightly on the floor. The sub frame of the Egyptian stool continues up into the sphere. In Poul Kjærholm's version, the sub frame bends outwards to create an intermediary space in which the sphere floats. This creates a lightness and motion that complements the shell, while the small intermediate space forms a compressed, reverse image of the space at floor level, which, on a planetary scale, is also a sphere. The feeling of this fine union of spherical shell and tripod is best reproduced by imagining a bowl resting on three fingers. The space the inverted tripod describes with its organic curves is succinctly focused in the rigid, vertical, triangular prism, softened by the tree fingers with the shell resting gently but securely on the fingertips. Externally, the leather traces the outline of the shell, while the animal hide suspended in the softer, inside frame comfortably accommodates the seated figure. The static column, with its three points at floor level, defines the horizontal and vertical planes, and is placed with unerring precision at the seated person's centre of gravity.

A particular characteristic of Poul Kjærholm's furniture is that it is conceived spatially. As the chair is sculptural, i.e. without direction, it links up beautifully with the centre of the round table. The clear, free space under the table is achieved with a sub frame reduced to a prismatic cube that supports a flint-rolled sheet of marble. The marble's rough surface is wit-

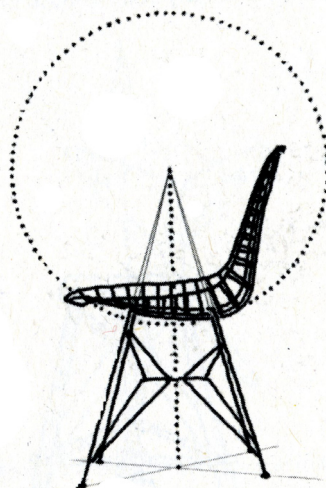
ubevægelige søjle, der sammen med de tre punkter i gulvplanet fikserer vandret/lodret, er placeret usvigeligt sikkert i den siddende tyngdeakse.

Det gælder i særlig grad Poul Kjærholms møbler, at de er tænkt rumligt. Da stolen er disponeret skulpturelt, det vil sige retningsløst, bindes den smukkest til centeret i det runde bord. Det klare, frie rum under bordet opstår ved, at understøtningen koncentrerer sig til en prismatisk kubus, der bærer en flintrullet marmorplade, hvis ru overflade understreger det retningsløse og fastholder formen. Egentlig er det utroligt store kontraster, hvis man ser på form og materiale. Søjlen, kuglen, den organiske linie, cylinderen og kubus. Stål, træ, sten og læder. Det hele er der. Det er næsten for meget. Men den ubesværede sikkerhed, hvormed det hele holdes i ave er et mesterstykke. – Jeg har egentlig aldrig kunnet begribe, hvorfor Poul Kjærholm blev opfattet som asket.

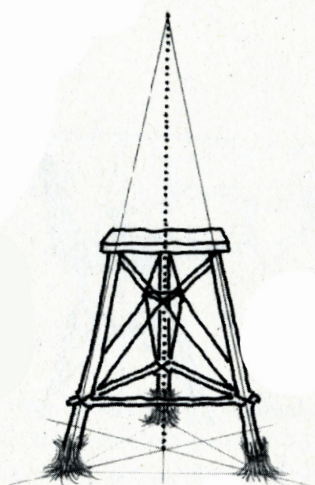
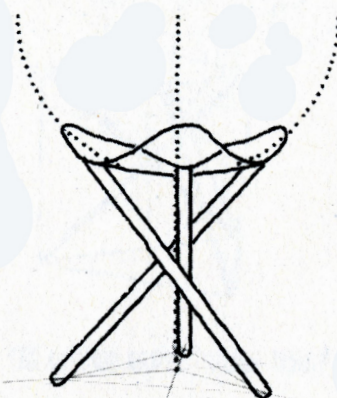
Charles Eames' helsvejste stålstoel danner et helt transparent rum, men alligevel med klar adskillelse mellem det bærende gitter, der er udformet som en firesidet pyramide, der skyder op gennem skallen til centret for en sfærisk kugle, der tangerer bunden af nettet og indeholder den siddendes torso. Placeringen af lodlinien et par tommer foran den siddendes tyngdepunkt og det mindre følsomme møde mellem underdel og overdel, gør stolen mindre harmonisk end Poul Kjærholm, og dens visuelle lethed modsiges af dens reelle tyngde.

Det er interessant at sammenligne med den grønlandske fangststol, der på sin vis er rumligt klarere med sine tre skridsikre bjørneskindsfødder. Den vejer næppe 2 kg.

Den enkleste måde at konstruere et rum på. Tre stænger, der af sig selv finder hvile på terrænet og op ad hinanden. I indianernes tipi bliver de til et rum, man går ind i, mens det lille format skaber et sadelformet sæde, der hænger på stagerne. Følelsen af



Charles Eames

Greenland fishing stool
Grønlandsk fangststolFolding stool
Foldestol

hout direction but maintains the form. In fact, vast contrasts are involved in terms of form and material. The column, sphere, organic line, cylinder and cube. Steel, wood, stone and leather. Everything is there. It is almost overdone. However, the easy precision with which it is all hold in check is a masterpiece. I have never really understood why Poul Kjærholm was perceived to be an ascetic.

Charles Eames' all-welded steel chair forms a completely transparent space. Nevertheless, there is a clear separation of the rodged sub frame, based on a four-sided pyramidal shape with corners which would, if continued up through the shell, meet at the centre of a sphere resting on the net and encompassing the torso of the seated figure. Because the vertical line is placed a couple of inches in front of the seated person's centre of gravity and the union of sub frame and shell is less sensitive, the chair is less harmonious than Poul Kjærholm's and its visual lightness is contradicted by its physical weight.

It is interesting to compare this chair with the Greenland fishing stool, which defines its space more clearly with its three skid-proof bearskin feet. It weighs less than 2 kg.

It is the simplest way of constructing a space: Three poles, each resting on the ground and supporting each other. In a North American Indian teepee, the poles form a space you can walk into. In the smaller version, a saddle-shaped seat hangs from the poles. The impression of a spherical space with both upward movement and weight is very clear.

The poles continue out into space after fulfilling their task and because they follow three separate directions, the four points of the compass do not bind them. Such objects free themselves from architectural constraints; they are tools. The ingenious rationality inherent in connecting three poles at one point and allowing a piece of leather or canvas to control movement with a precision

det kugleformede rum, der skydes op og tynges ned samtidig, er ganske klar. Stængerne fortsætter efter endt arbejde deres retning ud i rummet, og fordi de gør det i tre retninger, bindes de ikke af rummets 4 verdenshjørner. Typerne frigør sig af arkitekturen og forbliver redskaber. Den geniale rationalitet, der ligger i at binde tre stænger sammen i ét punkt og lade et stykke skind eller lærred bremse bevægelsen netop så meget, at konstruktionen følger sig efter terrænet, bliver i Niels Jørgen Haugesens forfinede udgave gjort mere kompleks. Han løsner punktet og lader en line tangere stængernes samtlige endepunkter, hvorved der skabes et rum dirrende af tryk- og trækkræfter. Det rumlige gennemtræk understreges af det perforerede sæde. Letheden og åbenheden har dog sin pris. Den bevægelighed og foldelighed, den anonyme taburet besidder, må afgives. Haugesens redelige eksperiment nærmer sig den statiske arkitektur, mens brolæggerstolen der vælter, når man rejser sig og foldestolen, der kan puttes i en pose, forbliver redskaber. Ting, der er rede – er til mobil disposition.

Der er 33 århundreder mellem disse to foldestole. Alligevel føles den ægyptiske ganske nærværende. Den største forskel er brugsmåden. Ægypteren brugte stolen med krydset sideværts, hvilket sikkert har tiltalt hans sans for symmetri og procession. Den sfæriske kugle, der bæres af krydsene, er så gennemgående et motiv i Ægypten, at man må tro, at formen har bidraget til en ceremoniel opfattelse af kroppen, der med sin udstråling omslutes af et æg – eller kugleformet rum. (Jf. relief på forsiden).

Klints udgave har krydset frontalt, den måde vi i dag traditionelt anvender typen som feltmøbel. Motivet i den ægyptiske er kuglerummet, der skydes opad, og indeholder den siddende, samt fastsættelsen af stængernes krumning, der tangerer terrænet og går tilbage i sig selv. I vore dages foldestole er dette motiv ikke særligt fremtrædende, her udtrykker stængernes bevægelse omkring navet et cylindrisk rum, der kun indeholder selve stolen.

that lets the structure tune itself to the ground becomes more complex in Niels Jørgen Haugesen's refined design.

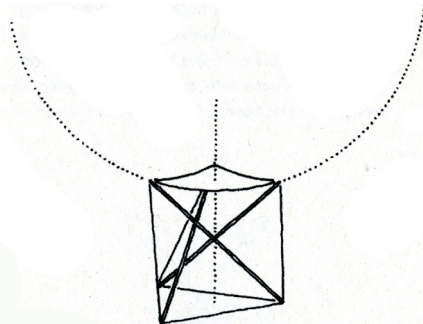
He relaxes the focal point and allows one line to connect all the pole-ends, creating a space that quivers with tension and pressure. The airy spaciousness of the concept is underlined by the perforated seat. Lightness and openness have a price, however. The mobility and foldability of the anonymous stool have to be sacrificed. Haugesen's

worthy experiments have a character close to static architecture, whereas the pavour's stool, which falls over when you get up, and the folding chair that fits in a bag, are tools. Utensils that are ready to use – that can be taken anywhere.

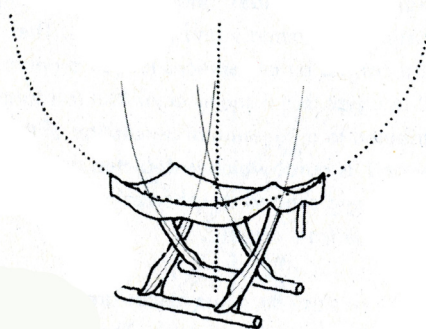
Even though 33 centuries separate the Egyptian folding chair and the chair designed by Kaare Klint, the Egyptian chair has a contemporary "feel". The biggest difference is the way they are used. The Egyptians used the stool with the crosspieces at the sides, undoubtedly reflecting their sense of symmetry and procession. The sphere carried by crosspieces is such a pervasive motif in Egypt that it seems clear that this form contributed to a ceremonial perception of the body and its aura, which is depicted as enclosed within an egg-shaped or spherical space (cf. the relief on the front cover).

In Klint's version, the crosspieces are transverse, as in the folding stools for outdoor use. The Egyptian stool's motif combines the raised sphere containing the seated figure with the definition provided by the curved cross-pieces that form a tangent with the ground and curve back on themselves. This motive is not typical in contemporary folding stools, in which the crosspieces move around the hub of a cylindrical space that encompasses the chair.

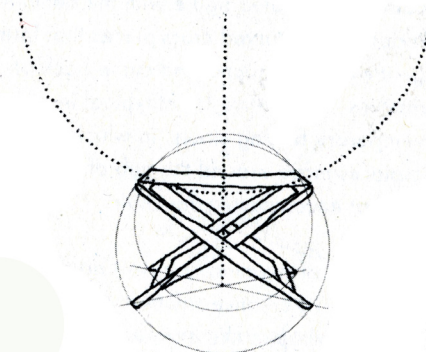
The problem of asymmetry gave Kaare Klint inspiration. His creative solution was to create crosspieces shaped like propellers, so that when the stool is folded each pair of poles forms a single round pole. When folded, the stool is clearly closed; when it is open, you can easily see and feel how compactly it



Niels Jørgen Haugesen, Cabinet-makers' Autumn Exhibition, 1982
Niels Jørgen Haugesen, SE, 1982 2.



Egyptian folding stool, 1360 B.C.
Ægyptisk foldestol, 1360 f.Kr.

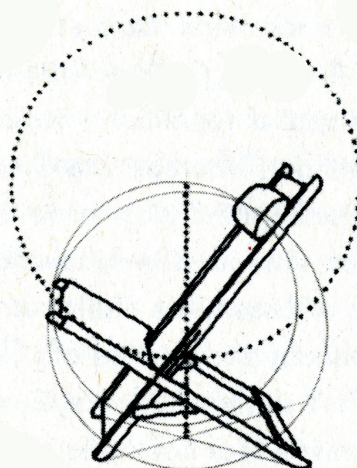


Kaare Klint, 1930

Problemet med asymmetrien i de krydsede rammer har givet været Klint en anspore. Løsningen med at svejfe et propelsnit, så to stænger i sammenfoldet stand udgør en rundstok er original, og han opnår, at den sammenfoldet klart udtrykker "lukket", udfoldet kan det ligefrem ses og føles, hvordan den vil lukke kompakt. Alt dette i konsekvens af Klints næsten maniske trang til at udrydde det urationelle restrum.

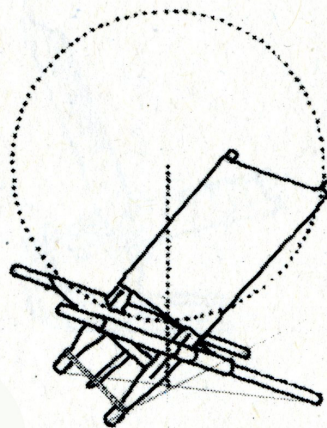
To eksempler på udvidelse af den simple foldestol, hvor den siddende placeres i øverste rumvinkel. I begge stole er valgt lige stænger, der forlænges så de lodder den bageste rumvinkel og samtidig inddrager hele den siddendes torso. Til gengæld er sæderne korte, hvilket bidrager væsentligt til det energiske udtryk, de rette linier sender ud i rummet. Hvor Jørgen Gammelgaard's version forholder sig præcist til sin egen rumlige gentagelse på grund af sine parallelle stænger, frigør Ole Gjerløv-Knudsen sig rumligt ved savbukkens sideværts spænding. Når savsnoren løsnes, kan det hele rulles sammen i et afslappet bundt og bæres væk. Stofligt varieres de fint. Den første lader canvassædet føre igennem, mens den anden gør det med lærredstryggen, begge lader asketræet stå med sin egen overflade.

To bidrag af forfatteren, hvor jeg prøver at fikser foldestolen til rummets lodrette og vandrette planer. I den første inddrages den siddendes rum af et plan, der beskrives af linier, der går gennem de vandrette vanger, der krummer op mod lodret, hvor de fortsætter efter at have tangeret rygbøjlen. Foldestolen indspændes, så den siddende hænger frit uden kontakt med konstruktionen. Rørene lades åbne, hvilket forstærker fornemmelsen af deres indre konstruktive hulhed, der skaber gennemtræk opad og udad. I den lange stol indspændes foldestolen i to par vandrette vanger med hver sin retning, der har en udstrækning, der sikrer ligevægten i forhold til tyngdepunktet i den siddendes rum. Dette beskrives

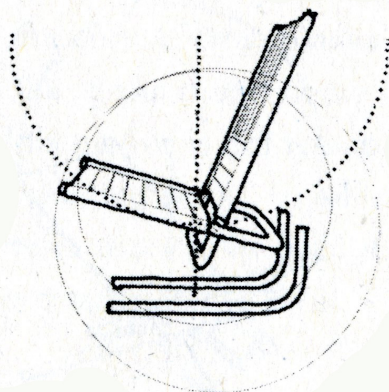


Jørgen Gammelgård, *Cabinet-makers, Autumn Exhibition, 1982*

Jørgen Gammelgård, SE, 1982



Ole Gjerløv-Knudsen, 1964



Erik Krogh, *Cabinet-makers' Autumn Exhibition, 1981*
Erik Krogh, SE, 1981

will close. All this is a consequence of Klint's almost fanatical urge to dispose of irrational wasted space.

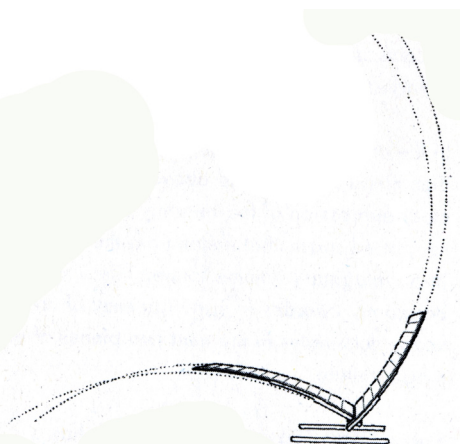
Two examples of extensions of the simple folding chair concept, with the seated figure occupying the space formed by the upper angle. Both chairs have straight poles, extended so that they "plumb-line" the back solid angle while encompassing the seated figure's entire torso. But the seat-length is short, contributing significantly to the energetic expression radiated by the straight lines. Jørgen Gammelgård's version maintains its own precise spatial repetition because of its parallel crossbars, whereas Ole Gjerløv-Knudsen's chair frees itself spatially by exploiting the transverse tension found in a bow saw. When the saw-string is released, the chair can be rolled up in a loose bundle and carried off. The use of material differs slightly. On Ole Gjerløv-Knudsen's chair, the canvas seat continues beyond the axis; on Jørgen Gammelgård's, the back does so. The wood in both chairs is untreated ash.

Two contributions from the author. I have attempted to relate the folding chair to the vertical and horizontal spatial planes. In the first example, the seated figure's space is encompassed by a flat surface described by lines that follow the runners and then curve upwards to the vertical to touch the top of the back rest. The chair is fixed so that the seated figure is suspended freely without touching the frame. The tubes are open-ended to reinforce the impression of their hollow structures, which creates an upward and outward spatial direction. Two horizontal runners fix the long chair. Their length ensures equilibrium in relation to the centre of gravity of the space occupied by the seated figure. This is described by segments of two identical cylinders that intersect each other in such a way that the legs rest on one cylinder and the back is supported by the inside of the other cylinder. Cylindrical surfaces that turn in on themselves to encompass and carry a seated figure offer a completely different

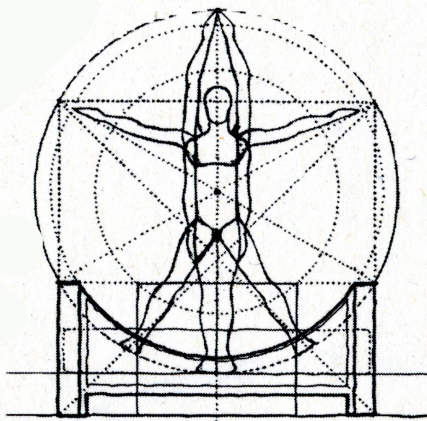
af segmenter af to lige store cylindre, der er skudt ind i hinanden således, at benene hviler oven på den ene tromle, mens ryggen støtter på det indvendige af den anden. Fornemmelsen af de cylindriske planer, der vender tilbage i sig selv og dermed omslutter og bærer den siddende, giver et ganske andet rumligt udtryk end planerne i den korte stol, der ligesom tager tilløb bag den siddende og slynges ud i rummet efter rette linier. Stofligt understøttes den rumlige virkning forskelligt i de to stole uanset materialernes ensartethed. Hanne Vedels hørlærred har retning og styrke langs skudtrådene, og den kraftige struktur udnyttes i den korte stol til bæring, mens afsyningen i hynden på flugtstolen fremhæver cylinderens frembringere i kontrast til krydsfinerstrimlerne, der følger cylinderens omkreds.

I den foregående række af typer har det gennemgående tema været et rum, der hæves op fra terræn med et tydeligt udtryk for det bærende-stoflige, og det bårnerumlige, der omslutter den siddende i et imaginært rum formet som en kugle, en liggende cylinder eller som et æg. Den form for rumdannelse kulminerer med de næste to liggemøbler.

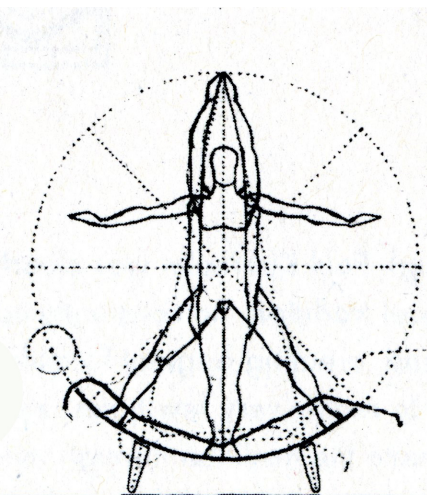
Kaare Klints "ægyptiske" kaneseng, hvis geometriske udformning tager udgangspunkt i en kugle, hvis diameter er bestemt af rækkehøjden for en 3 alen høj person, præcis det samme som i Le Corbusiers chaiselongue. Blot er der her et cylindrisk rum målsat efter rækkehøjden i Le Corbusiers Modulor-system: (226 cm). Dette rum skærer sig igennem stolens struktur, så den liggende kommer til at svæve eller flyde i et rumligt tøndehvælv, der roterer om sit navlecentrum. Hvor Klints seng næsten er et skoleridt i den klassiske rumgeometri, er Le Corbusiers chaiselongue et barn af kubismens dynamiske rumopfattelse. Samtidig med at Poul Kjærholm forholdt sig klart til den klassiske formtradition, indvandt han til stadighed nyt land. Originale formuleringer



Erik Krogh, Cabinet-makers' Autumn Exhibition, 1982
Erik Krogh, SE, 1982



Kaare Klint, 1938



Le Corbusier, 1929

spatial expression to the surfaces in the short chair that seem to spring up behind the seated figure, before being projected into space along a straight path. Though the same material is used for the two chairs, it reinforces the spatial effect in different ways. Hanne Vedel's linen is woven with the nap and strength running lengthwise along the warp threads. Its powerful structure is used in the short chair for bearing, while the detail in the long chair's pillow emphasizes the cylinder's surfaces in contrast to the plywood strips, which trace the cylinder's circumference.

In the chair types considered above, the linking theme is a space raised above the ground, with clear expression of the bearing material and supported space that encompass the seated figure in an imaginary volume formed like a sphere, a horizontal cylinder or egg. This way of creating space culminates in the next two pieces of reclining furniture.

Kaare Klint's "Egyptian" sledge bed has a geometric design based on a sphere with a diameter determined by the distance a person who is six feet tall can reach, just as for the Le Corbusier chaise longue. However, Le Corbusier's is a cylindrical space based on the stretch-distance in his Modulor system: (226 cm). This space intersects the structure of the chaise longue, so that the reclining figure hovers or floats in a barrel-shaped space that rotates around its central point – the navel. Where Klint's bed is almost a textbook example of classical spatial geometry, Le Corbusier's chaise longue is a child of cubism's dynamic perception of space. Even though Poul Kjærholm was clearly loyal to the classical tradition, he constantly conquered new ground, creating original formulations of what are in reality very few types. He thus helped to perpetuate the tradition through innovation. He was the first to conceive the long chair that completely frees a person from the ground, raising him up in spatial equilibrium with the least possible support. The vast, elastic contra-curved surface is like a Chinese

af de i virkeligheden ganske få typer. Han bidrog herved gennem fornyelse til vedligeholdelse af traditionen. Den lange stol, der helt frigør mennesket fra terrænet og bærer det i rumlig ligevægt med mindst mulig støtte, formulerede han først. Det store spændstige kontrakrummede plan er som et kinesisk tegn, der inddrager rummet i en storladen bevægelse, der formidles præcist til det omgivende rums gulv og vægge af den faste jernhånd.

Barcelonastolen er både klassisk og kubistisk. Klassisk i sin strenge geometriske opbygning og kubistisk i sin rumopfattelse, idet den først optræder som arkitekturdetalje i Barcelonapavillonen i 1929. Man har normalt hæftet sig ved, at stolen lader sig indskrive i en terning med siden $2\frac{1}{2}$ fod. Imidlertid er det i denne sammenhæng mere interessant, at en 5 fod stor liggende cylinder kan rulles ind i stolens rum og omslutte den siddende, i øvrigt på samme måde og med samme mål som foldestolen på det ægyptiske relief (se forsiden).

Barcelonastolen, der i virkeligheden er 30% "for stor" i forhold til normale brugsmål, er et eksempel på konflikten mellem stor og lille. Abildgaards store græske stol er i den sammenhæng særdeles interessant, for man skal faktisk være over 2 m høj, for at kunne fylde den. Abildgaard er sikkert faldet for fristelsen til at lave en stol som et monumentalt, arkitektonisk element. Sammenlignet med Abildgaards, bliver Barcelonastolen næsten en nipsgenstand.

En anden kæmpe er Finn Juhls "Høvdingestol", der har givet eftertidens stolemagere mere end sved på panden. Den er dog så afvæbnende i sin skulpturelle monumentalitet, at de fleste i al hemmelighed holder af den. Hvad sikkert de fleste ville forsværge, er den opbygget af en endog særdeles streng geometri, med de fire lodrette stolper placeret som et indskrevet kvadrat i en meterbred cylinder, hvor den lodrette centerlinje med usvigelig sikkerhed fastholder stolens omdrejning. Den kræver sit rum, men den fylder det, og hvor Barcelonastolen næsten forudsætter addition, er Høvdingestolen sig selv nok.

symbol, encompassing the space in a grandiose movement and related to the floor and walls of the surrounding space by the bearing frame.

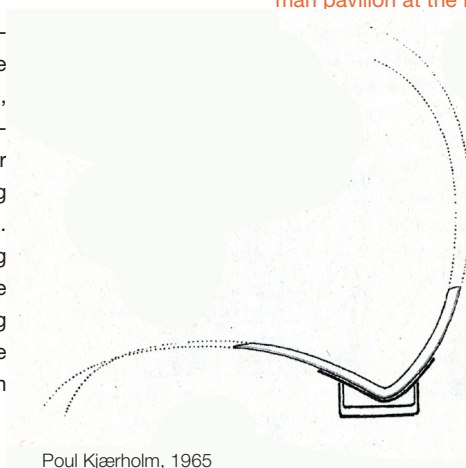
Mies van der Rohe's Barcelona Chair is both classic and cubist. Classic in its strict geometrical structure and cubist in its perception of space, since it was first displayed as an interior-design feature in the German pavilion at the Barcelona World's Fair in 1929. It is usually stated

that the chair is contained within a cube with sides measuring two and a half feet. In this context, however, it is more interesting that a five-foot cylinder can be rolled into the chair's space to encompass the seated figure – in the same way and with the same dimensions as for the folding chair shown in the Egyptian relief.

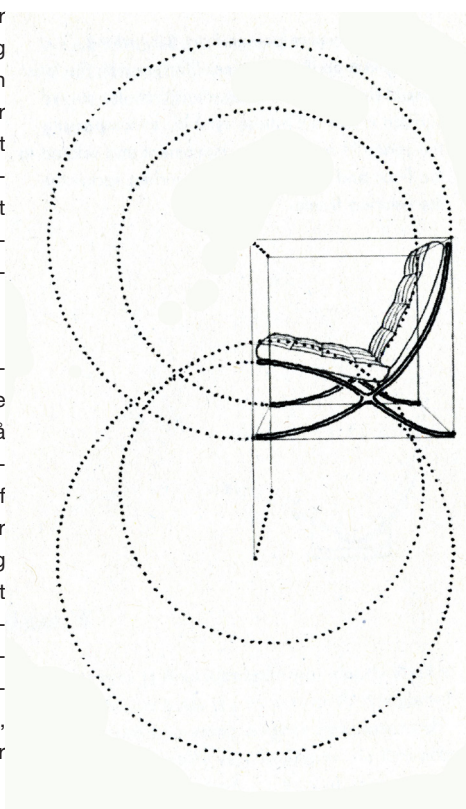
The Barcelona Chair, which is actually 30% "too big" in relation to the measurements normally used, is an example of the conflict between large and small. Abildgaard's large Greek chair is particularly interesting in this context, as the seated person has to be more than two meters tall to fill it. Abildgaard has, no doubt, surrendered to temptation and made the chair into a monumental, architectural object. Compared with Abildgaard's chair, the Barcelona Chair is almost a knick-knack.

Finn Juhl's "Chieftain's Chair" is another giant that has disturbed chair-makers more than a little. But it is so disarming in its sculptural monumentality that most people are secretly fond of it. Though most would certainly deny the fact, it is based on very strict geometry, with its four vertical columns placed like an inscribed square in a meter-wide cylinder, in which the vertical central line maintains the chair's rotational axis with unswerving precision. It requires space, but fills it. And, whereas the Barcelona Chair almost calls out to be multiplied, the Chieftain's Chair is sufficient in itself.

With the classic Greek chair as an example, there is a definite break in the perception of space in relation to how it has been described above. It is the original for chair designs



Poul Kjærholm, 1965



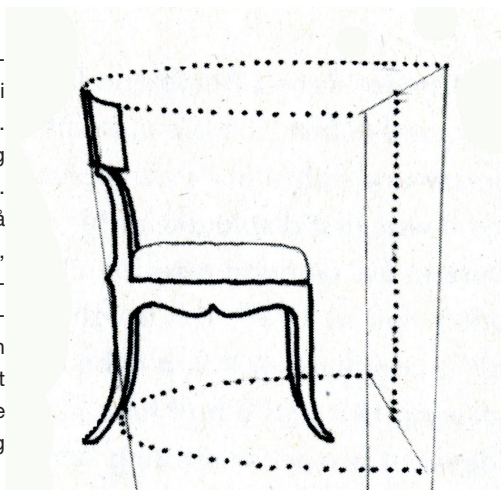
Mies van der Rohe, 1929

Med den klassiske, græske stol som eksempel, sker der et afgørende brud i rumopfattelsen i forhold til det foregående. Den bliver ophav til stoletyper, der stadig er omsluttende, men nu omkring lodlinien. Stolens rum kommer nu så at sige til at stå lodret på gulvet, hvor det før blev hævet op, fri af terrænets vage. Lodlinien bliver nu akse i et omdrejningslegeme, en stående cylinder eller kegle. Det vil sige, at personen omsluttet i plan i et krumt rum, ofte målsat efter den alen, der opstår, når en siddende person med favnende arme omskriver sig selv.

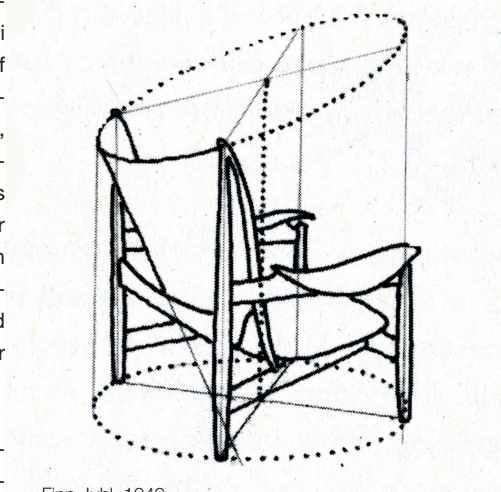
Abildgaards forgyldte stol, der med en elegant fjedrende gestus skyder sædet op i rygbrædtets kegle, udgør en syntese af ægyptisk lethed og græsk præcision. Samtidig med at ryggen indgår i rumkeglen, danner den sammen med agterstavens aftræk et ægformet rum, hvis form fastholdes af forgyldningen, der samtidig understreger stolens sfæriske, ustoflige karakter. Men med keglen, der er målsat efter en almindelig dansk alen, er vi nu ovre i typer med normale brugsmål, og hvis hovedtræk er vertikale cylindere og kegler.

Ved proportionering af stole er hovedproblemet at overholde de brugsmæssige korrekte mål i forhold til kroppen og samtidig give stolen en markant størrelse i forhold til det omgivende rum. Altså gøre stolen stor nok og samtidig holde den lille nok. Gamle stolemagere siger, at uanset type, skal summen af sædehøjde og sædedybde være 32 tommer for at give en brugbar stol. Det svarer til skridthøjden på en person på 64 tommer. (168 cm).

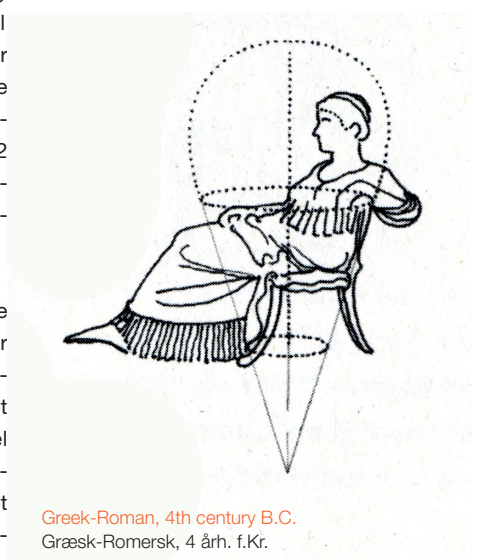
Med den kinesiske stol indføres det vertikale rumtema klart, som navnlig Hans J. Wegner har fortolket i en lang række varianter. Kinastolen får karakter gennem kontrast. Det øvre og nedre rumafsnit udtrykker formel forskellighed og ikke som vist i de foregående typer, hvor det er det bærende og det bårne, der betones. Her er det ligeværdig-



N. A. Abildgaard, 1800



Finn Juhl, 1949

Greek-Roman, 4th century B.C.
Græsk-Romersk, 4 årh. f.Kr.

that still encompass but are centered on the vertical line. The chair's space could be said to stand upright on the floor, whereas before it was raised and freed from the horizontal dimension. The vertical line now becomes the axis in a rotating body – an upright cylinder or cone. In other words, the seated figure is encompassed in plan view by a curved space, often with its limits determined by the measurement obtained when an individual sits with folded arms.

Abildgaard's gilded chair, with its elegant springiness that pushes the seat up into the backrest's cone, is a synthesis of Egyptian lightness and Greek precision. While the backrest forms part of the spatial cone, it also combines with the impression of the rear columns to form an egg-shaped space. The form of this space is maintained by the gilding, which also underlines the chair's spherical, immaterial nature. But the cone, which is measured in accordance with the conventional Danish two-foot standard, takes us on to chair designs with conventional dimensions and of which the main characteristics are vertical cylinders and cones.

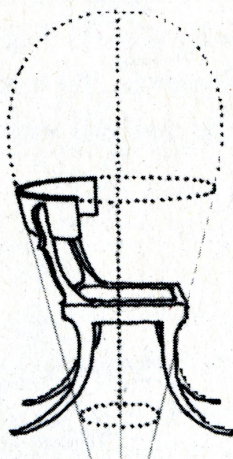
The main problem in deciding the proportions of a chair, is to keep to measurements that are useful in relation to the body, while giving the chair a distinctive size in relation to the surrounding space – i.e. to make it big enough and small enough at the same time. Chair designers of the old school say that regardless of the type of chair, a good design requires the sum of the seat height and seat depth must be 32 inches to give a useable chair. This equates with the standing height of a person 64 inches tall (168 cm).

The Chinese chair introduces the vertical spatial theme clearly – a theme which Hans J. Wegner in particular has interpreted in many variations. The Chinese chair gains its character from contrast. The upper and lower spatial sections express formal variation, unlike the chair types mentioned earlier, in which it is the bearer and the borne that

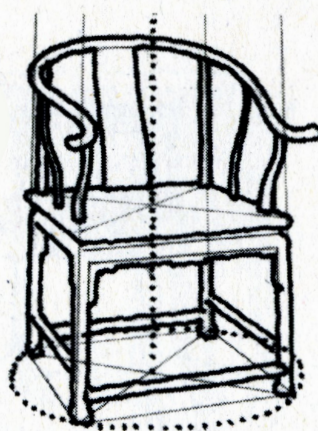
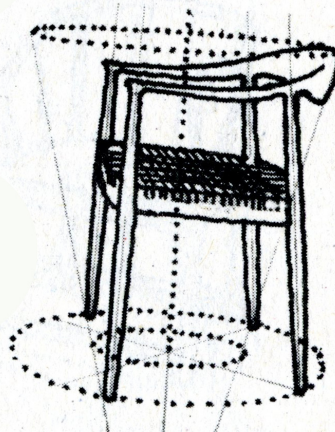
hed trods forskellighed. Det underste, kubiske rum, der spidser en anelse opad og virker stabilt og jordnært med sine fire verdenshjørner, møder efter en kort indånding i noten den øvre, vandrette plade, der lader stængler og støtter bære den svungne ryg, som i en yndefuld bevægelse beskriver den siddendes sfære. Det øvre rum er et nuanceret, let og luftigt spejlbillede af det nedre, lukkede rums tyngde. Alt er i harmoni – og i øvrigt i overensstemmelse med kinesisk kosmologi, hvor kvadratet beskriver det jordiske med de fire verdensretninger, mens cirklen beskriver det uendelige himmelrum.

I Hans J. Wegeners stol er kontrasten erstattet af bevægelse. De fire søjler indgår som frembringere i det svagt kegleformede rum, der danner en nøjagtig signatur om den siddende, mens ryghældningen antyder en indvendig omvendt kegle, der skyder sig ned i terrænet. Sædets rumskabende betydning fremhæves af den transparente fletning, ophængt som en trampolin, og de tenformede ben, der slipper terrænet med en afrunding, der bidrager til en opadgående bevægelse, der bremses og vendes af den fint modellerede ryggkarm.

Med Kaare Klints Faaborgstol bliver karmen til en gentagelse af det vandrette plan, og det cylindriske rum falder derved helt på plads. Mindelserne fra den græske stoles i de svajede agterstave, og den lodrette rørfletning angiver klart det krumme, spændte rum, der siver helt til gulvet gennem det transparente sæde. Rørfletningens fine stoflighed understreges af det masrede egetræs prikkede struktur, og ligesom i Wegners stol er den stofflige kombination så væsentlig, at senere varianter med løst polstret sæde er klare forringelser. Hvor stærkt rumlighed og stoflighed hænger sammen, fornemmes særligt i denne stol og særligt i Faaborg Museum frit stående på Carl Petersens teglmosaik – over for hinanden og med god afstand.



N. A. Abildgaard, 1800

China, 1700
Kina, 1700

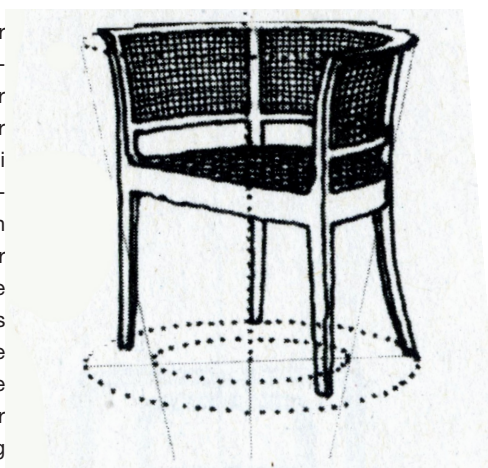
Hans J. Wegner, 1949

are accentuated. There is equality in spite of variation. The lower, cubic space – narrowing slightly towards the top – appears stable and down to earth, with its four points of the compass. After “breathing in” slightly, the cube meets the upper horizontal seat panel, with its blend of stem-like and more substantial supports that carry the back, which in a beautiful, sweeping movement circumscribes the seated figure’s sphere. The upper space has many nuances and is a light and airy reflection of the weight of the lower, enclosed space. Everything is in harmony – and also in harmony with the Chinese cosmology, in which the square, with the four compass points, represents earthly qualities and the circle expresses infinite space.

In Hans J. Wegner’s chair, movement replaces contrast. The four columns act as surface lines in the gently conical space that exactly circumscribes the seated figure. The angle of the back hints at an inner, inverted cone that projects down into the floor. The chair’s space-creating significance is emphasized by the transparent weave, suspended like a trampoline, and the spindle-shaped legs that release the ground with a curve that contributes to the upward movement that is captured and reversed by the finely modeled backrest.

The ledge-shaped backrest of Kaare Klint’s Faaborg chair is a repetition of the horizontal surface, neatly delimiting the cylindrical space. A resemblance to the Greek chair is seen in the curved rear supports. The vertical basket weave clearly defines the curved, tensioned space that penetrates right through the transparent seat to the floor. The fine texture of the woven reed is underlined by the dotted texture of the cross-grained oak. As in Wegner’s chair, the textural combination is so important that later versions with loosely upholstered seats are clearly not as good. The strong link between spatial and textural qualities is particularly easy to sense in this chair, especially in Faaborg Museum, where several have been placed in pairs, placed op-

Poul Kjærholms stålsatte parafrase over Wienerstolen er indtil videre det mest definitive svar på typen. De to bøjler, der sætter af i fire af pentagonens fem punkter, danner uden at røre hinanden den siddendes rum i en enkel, stærk bevægelse. Det er den eneste af Poul Kjærholms stole, hvor overfladen er blank, hvilket understreger, at søjlerne er lodrette og runde i profil. Præcist spejler de det omgivende rums lodrette flader. Alle hans andre møbler har skarpe profiler og/eller de krummer i vinkler uden for lod og vage. At de derfor er matte, så de fastholder formen, viser Poul Kjærholms fine sans for stofflig og rumlig økonomi.

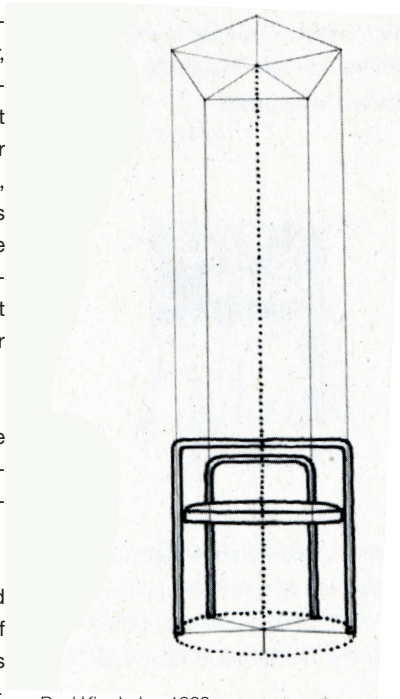


Kaare Klint, 1941

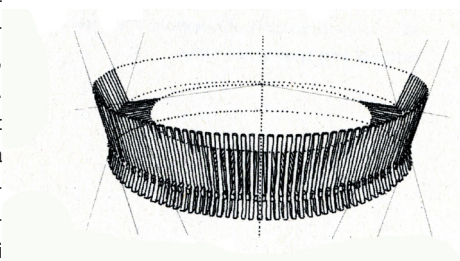
I Per Borres store, halvcirkulære bænke, opbygget af sammenspændte, udkragede brædder, er det igen mellemrummene, der giver karakter. De opstår naturligt, fordi hvert andet bræt ligger på klink, og da brædderne beholder deres dimension, bliver det mellemrummene, der divergerer i forhold til de store rumkegler centrum. De mange gentagelser opfattes ikke som monoton, men som et fint stoffligt/rumlige tangentspil, der skifter toneart præcist der, hvor den flade sædekegles fingre smutter imellem ryg- og støttekeglen.

I Kristian Vedels barnestol, er cylinderen ikke bare motivet, det er selve stolen. Den er disponeret, så en rigelig, formspændt krydsfinercylinder angiver det voksende barns råderum.

I Ole Gjerløv-Knudsens eksperiment med krydsfiner er rummet blevet indspændt af en sædemembran, der trækker cylinderens friskårne frembringere sammen, så der opstår en timeglasform, hvor det øvre rum er et spejlbillede af det nedre. Her er det mellemrummenes deformation, der i deres spændte, gentagne kurveforløb forklarer rummets form. Disse rumlige spændinger tilfører stolen et udtryk af latent energi. Den ikke bare står på gulvet som Kristian Vedels barnestol, den bider sig fast. Når man sidder i den, føler og hører man tydeligt, hvordan man arbejder med konstruktionen.



Poul Kjærholm, 1962

Per Borre, Cabinet-makers' Autumn Exhibition, 1979
Per Borre, SE, 1979

posite one another some distance apart on Carl Petersen's mosaic floor.

Poul Kjærholm's staunch paraphrase of the Vienna Chair is, to date, the most definitive example of its type. The two frame sections, marking out four of the five points of a pentagon, form the space occupied by the seated figure in a single, powerful movement without touching each other. This is one of Poul Kjærholm's chairs with a shiny surface, highlighting the tubes' vertical rounded profile. They reflect with precision the vertical surfaces of the space surrounding them. All his other furniture has sharp profiles and/or curved angles but not vertical and horizontal. The fact that they are matt, thus maintaining their form, demonstrates Poul Kjærholm's fine sense of material and spatial economy.

In Per Borre's large semi-circular bench, constructed from molded, corbelled boards, once again the intermediate spaces give character. The spaces occur naturally because the boards forming the back and seat alternate. The boards all have parallel sides; thus, it is the spaces between them that diverge in relation to the centre of the large spatial cone. The multiple repetition is not monotonous, but gives the impression of a fine textural / spatial "keyboard", changing the key at the precise point where the fingers of the seat come between the cones formed by the back and support.

In Kristian Vedel's child's chair, the cylinder is not simply the motif; it is actually the chair. A fairly large molded plywood cylinder delimits the active play area of a growing child.

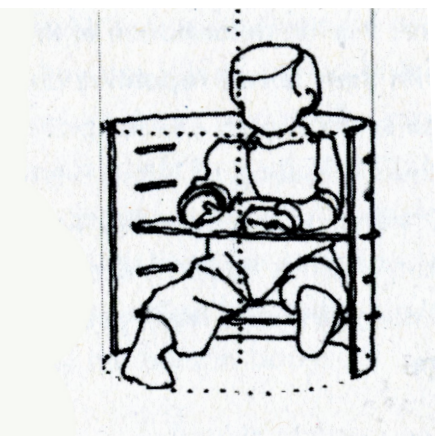
In Ole Gjerløv-Knudsen's experiments with plywood, the space is defined by a seat membrane that gives the cylinder a waist, forming an hourglass shape in which the upper space reflects the lower space. Here, it is the deformation of the intermediate spaces, with their tense, repetitive curves, that outlines the spatial form. These spatial tensions give the chair a feeling of latent energy. It does not

Den traditionelle Windsorstol følger fint det rumlige motiv. Her sker der imidlertid en kraftkoncentration i sædeskiven, der netop altid er et massivt kilebræt og stolens stofflige mellemgulv. Herfra spiler pindene rummet ud i en dobbelt spejlvendt bevægelse. Opad følger pindene alenkeglen, der har sit toppunkt under terræn, mens benenes flugtlinier danner en firesidet pyramide med toppunkt i øjenhøjde.

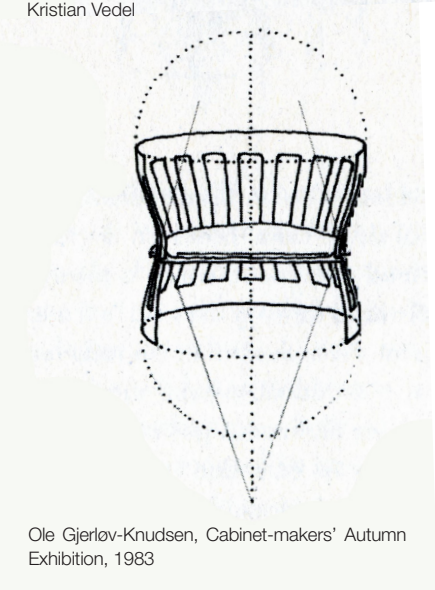
De to toppunkter, som er usynlige, er til gengæld typens mest følsomme fixpunkter, fordi de mødes omkring den usynlige lodlinie. Netop lodlinien er uhyre vigtig for stolerummet, og for hvordan det modtager sin siddende gæst. (Jf. Kjærholm og Eames side 8 og 9). Jeg taler ikke her om teoretisk geometri, men praktisk kropsgeometri.

Børge Mogensen's J39 fortjener opmærksomhed for sin selvfølgelighed. Trods sin beskedenhed er den et mesterstykke. Stolens enkelthed består ikke i få elementer, men i at den er disponeret med klarhed og økonomi i virkemidler, og den er klassisk i mere end en forstand. Den samler trådene fra de kendte Middelhavstyper, men viderefører også hellenernes fine følelse for rummets binding til lod og vage. I det græske tempel falder alle søjlerne ind mod et punkt højt oppe. Og fordi alle søjlerne er en anelse forskellige, trækkes opmærksomheden mod den fælles imaginære lodlinie, der bliver ét med tyngdekraften i templets centrum. Således forstærkede grækerne oplevelsen af tempelgulvets spændte vandrette plan. I J39 er det den omvendte virkning. De tilsyneladende vandrette sprossers flugtlinier løber sammen i punkter bagude i terrænet og forankrer herved umærkeligt mellemrummene til det vandrette, så oplevelsen af benenes lodretted forstærkes. Denne virkning understreges yderligere ved at alle dele, der refererer til vandret, er svagt krummede.

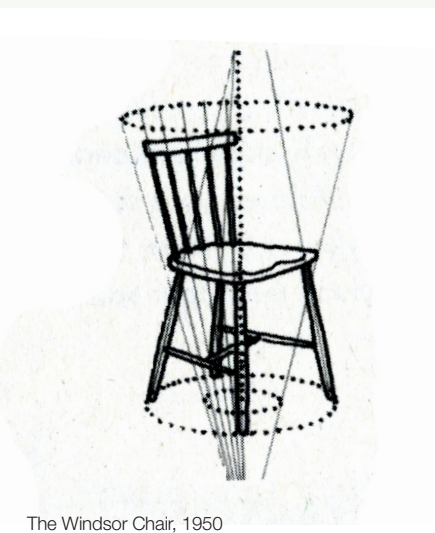
Hvor der som regel er en vis samtidighed i oplevelsen af en stol, føles det i J39 som om rumkeglen først i sidste øjeblik er skåret



Kristian Vedel



Ole Gjerløv-Knudsen, Cabinet-makers' Autumn Exhibition, 1983



The Windsor Chair, 1950

simply stand on the floor like Kristian Vedel's child's chair – it bites into it. When you sit in it, you can clearly feel and hear your involvement in its structure.

The traditional Windsor Chair effectively reflects the spatial motif. Here, however, the force is concentrated in the seat, which is always a solid wedge of wood forming the chair's material centre point. From this point, the rods reach out in a double, mirrored movement. Upwards, the rods trace the cone that converges at a point below the ground, while the extended lines from the legs form a four-sided pyramid that peaks at eye-level. These two peaks, though invisible, are the most sensitive fixed points for this type of chair, because the invisible vertical line joins them. This vertical line is crucially important in relation to the chair's space and the way it receives its seated guest (cf. Kjærholm and Eames, pp 8 and 9). I am not referring here to theoretical geometry, but to the practical geometry of the human body.

Børge Mogensen's J39 deserves attention for its obviousness. In spite of its modesty, it is a masterpiece. The chair's simplicity results not from its few elements but from the clarity and economy of its design. It is classic in more than one sense. It gathers together the threads of the familiar Mediterranean chair-types but also further develops the Hellenists' fine feeling for a space's links with vertical and horizontal. In Greek temples, all the columns converge at a very high point. And because all the columns are slightly different, attention is drawn to the imaginary vertical line that unites with the force of gravity at the heart of the temple. This was how the Greeks strengthened the experience of tension in the horizontal surface of the temple floor. In the J39, the opposite effect is achieved. The apparently horizontal lines of the cross-bars converge at points on the floor behind the chair, imperceptibly anchoring the intermediate spaces to the horizontal line and thus strengthening the vertical line of the legs. This effect is

ned mellem benstøjlernes, oven i købet med så stor fart, at det øverste af agtersøjlerne er skåret væk for at få plads til dem.

Børge Mogensens stol er den sidste i rækken af stolyper, som jeg vil kalde klassicistiske, og hvis fornemste repræsentanter for mig er arbejder af Abildgaard, Klint, Kjærholm og Mogensen. Jeg vil gerne understrege, at med det klassicistiske hentyder jeg ikke til noget bestemt kapitel i den kronologiske stilhistorie. Her skal det forstås som den bagvedliggende holdning til den rumlige og stoflige bearbejdning. Holdningen og dette syn der har udspring i det antikke Grækenland og påvirkningen fra dette åndelige kraftcentrum, vil antagelig bestå langt ud i fremtiden. Rumopfattelsen, navnlig som den udformedes i renæssancen, bygger dels på rummets perspektiviske sammentrækning, men også i høj grad på rummets omsluttende karakter, hvad enten den skabes af en konkret, stoflig afgrænsning, eller den blot antydes af imaginære, krumme planer. Det gælder husenes rum og naturligvis også rummenes udstyr, herunder stolene og deres rumlige beskaffenhed og udtryk.

Efter 1. verdenskrig gennembyrdes denne rumopfattelse. Angiveligt under indtryk af den materielle og psykologiske ruin man ønskede at lægge bag sig.

I maleriet, der altid har fungeret som rumudforskningens seismograf, blev der vendt op og ned på alting. Kubismen bortmalede det perspektiviske rum, og de omsluttende og beskyttende vægge blev friskåret og rettet ud af et internationalt kunstsyn med tyngdepunkt i Bauhaus. Man ønskede frisk luft og lys ind i rummet. Nye rene farver. Nye former. Ny stoflighed.

For stolens vedkommende betød denne nye sansning, at fornemmelsen for det omsluttende, krumme rum blev opgivet til fordel for et rumligt koordinatsystem, ofte behersket af rette linier, planer og vinkler, der i de foregående typer spillede en mere underordnet rolle.

Rietvelds berømte stol med de farvede planer er det første gennembrud med det nye rumtema. Det omsluttende og afsluttende er væk. Rummet gennemskæres af ligeværdige søjler og dragere, der blot tangerer hinanden, før de fortsætter opad-udad, som gentagelser af rummets 3 koordinater:

further reinforced by the addition of a slight curve to all elements relating to the horizontal line.

Usually, all aspects of a chair are experienced more or less simultaneously. With the J39, however, it feels as if, at the last minute, the spatial cone that includes the backrest has been cut down between the leg columns, and with such speed that the tops of the rear supports have been cut away to make room for them.

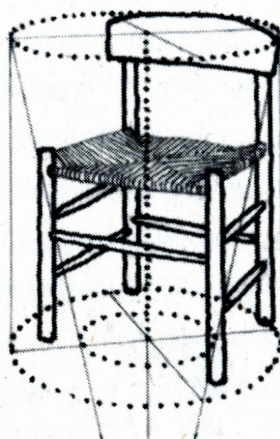
Børge Mogensen's chair is the last of the series of designs that I would call "classicist", the finest examples of which in my opinion are the designs of Abildgaard, Klint, Kjærholm and Mogensen. I should like to stress that I do not use the term "classicist" to refer to any particular chapter in the chronological history of style. It is to be understood as the underlying attitude to the treatment of space and materials. This approach and vision, originating in ancient Greece and influenced by this spiritual powerhouse, will undoubtedly continue far into the future. The perception of space, exactly as it was formed

in Renaissance times, is built partly on the contraction of spatial perspective but also to a high degree on the encompassing nature of space, whether created by concrete, tangible boundaries or simply suggested by imaginary, curved planes. This applies to the space in a building and naturally also to the objects it contains, including chairs, the space they occupy and their appearance.

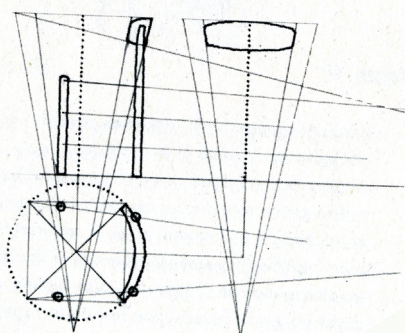
After the First World War, there was a break with this view of space. Ostensibly because of the material and psychological ruination that people wished to put behind them.

In painting, which has always functioned as a seismograph for spatial research, everything was turned upside down. Cubism painted out spatial perspective and the encompassing, protective walls were cut away and corrected by an international artistic vision that had its centre of gravity in Bauhaus. People wanted building interiors to have fresh air and light. New bright colors. New shapes. New textures.

For chairs, this new feeling meant that the impression of an encompassing, curved space was discarded in favor of a spatial system based on coordination, often ruled by straight lines, planes and angles that played



Børge Mogensen, 1947



Børge Mogensen, projection

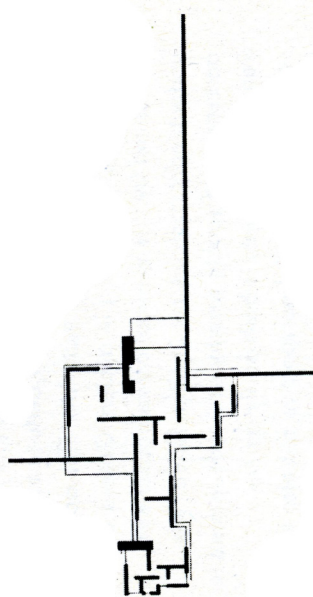
højde-, bredde og dybde. De eneste afvigelser er netop det røde rygplan og det blå sædeplan, der ved deres skråstilling skærer den menneskelige krop ind i rummet, ikke i hvile, men i afbalanceret ligevægt. Sædeplanet er blå, det spejler det vandrette, passive: himlen og vandet. Rygplanet er rødt, det illustrerer den lodrette, aktive bevægelse langs lysets retning. Stofligheden er vendt til farver for at understrege og fastholde den rumlige bevægelse. Den gule farve for enderne af de neutrale, sorte elementer antyder, at de egentlig ikke holder op, men blot skifter tilstand fra synlig til usynlig.

Sammenlignet med fornemmelsen af det sammenpressede, krumme rum i de foregående karmstol-typer, virker rummet i den røde/blå stol nærmest ubevægeligt. Det er elementernes bevægelse mod det omgivende rum, der føles stærkest. Føres sammenligningen videre til Breuers store Wassilystol, er bevægelsen omvendt. Den bevæger sig ind i sig selv og rundt i sig selv, og det flydende forløb fortsætter i rørenes usynlige indre rum, der hele tiden skifter retning. Stolen, der optager det samme store kubiske rum som Barcelona-stolen, hænger den siddende op i stropper af eissengarn, som desværre i nyere udgaver er erstattet af tykt, lakeret kærnælæder. Hvor Rietveld arbejder med farvekontrast, udnytter Breuer den stærke stoflige kontrast mellem det grove eissengarn og det blanke krom, der dramatisk bidrager til rørenes visuelle bevægelse.

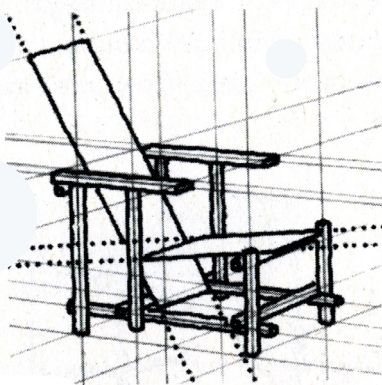
Med den tredje af de store stole, Aaltos sanatoriestol, fuldendes pionertidens rumlige stoleprogram.

Næsten samtlige eksperimenter i efterkrigstiden står i gæld til disse tre, og destillationen af de rumlige, de stoflige og de tekniske kvaliteter er langt fra afsluttet.

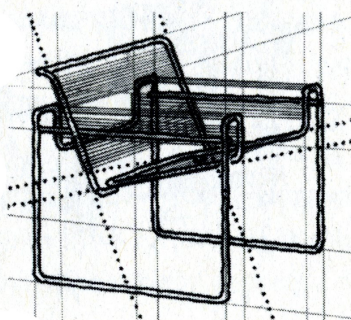
Desværre ender diskussionen om det gyldige, de repræsenterer oftest i ufrugtbar adskillelse af det æstetiske og det brugsmæssige. Det påstås, at man ikke kan sidde i



Mies van der Rohe, plan for a country house, 1923
Mies van der Rohe, plan af landhus, 1923



Gerrit Rietveld, 1918



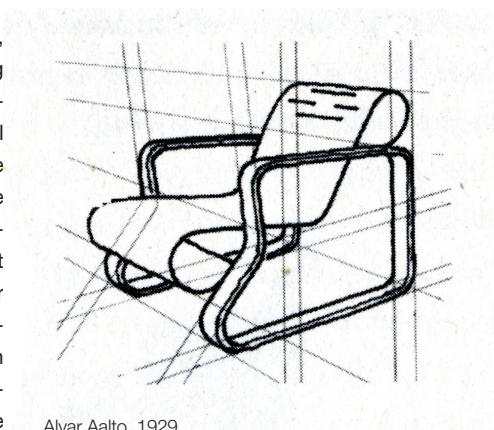
Marcel Breuer, 1928

a less prominent role in the chairs discussed above.

Rietveld's famous chair with its colored planes is the first breakthrough in this new spatial theme. The encompassing and definitive qualities have disappeared. The space is intersected by columns and cross-bars of equal importance that simply touch each other before continuing upwards and outwards, like reflections of the three coordinates of space: height, width and depth. The only exceptions are the red backrest and the blue seat. Their angles inset the human body into the space, not in rest but in poised equilibrium. The surface of the seat is blue, reflecting the horizontal, and the passive: the sky and water. The backrest is red, illustrating the vertical, active movement along the direction of light. The material effect is transformed into colors to emphasise and perpetuate the spatial movement. The yellow ends of the natural black element suggest that, rather than actually stopping at a particular point, these elements simply change from being visible to invisible.

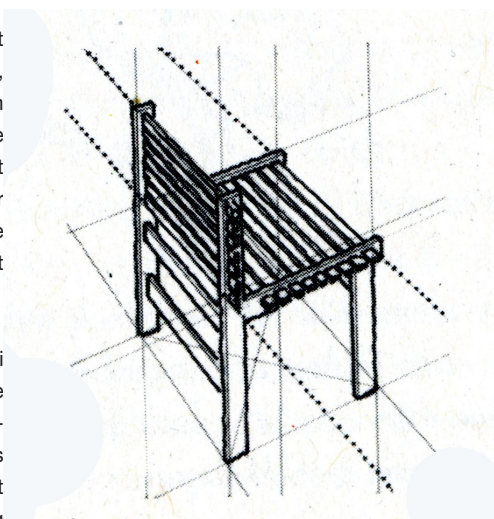
Compared with the feeling of the compressed, curved space of the chairs previously described, the space in the red and blue chair seems almost immovable. It is the movement of the elements within their surrounding space that is experienced most intensely. If the comparison is extended to include Breuer's large Wassily Chair, the movement is inverted. It is inward and rotates about its own centre; the flowing process continues inside the tubes' invisible inner space, that continually changes direction. The chair, which occupies a cubic space as large as that of the Barcelona Chair, suspends the seated figure on straps woven from glass yarn, which have sadly been replaced in later models by thick leather. Whereas Rietveld worked with color contrasts, Breuer exploited the powerful textural contrasts between the rough glass yarn and the shiny chrome that contributes dramatically to the visual movement of the tubes.

Rietvelds stol. Det forholder sig dog sådan, at det er den af de tre, man befinder sig bedst i, fordi den giver kroppen den smukkeste og mest korrekte balance. Årsagen til mishaget, tror jeg, ligger i det konsekvente udtryk, der spiller opfattelsen det sære puds, at man bliver ude af stand til at adskille det man føler fra det man ser, - og det man ser, fra det man føler. I den forstand er Aaltos stol den svageste, fordi den er meget åben i siddevinklen, antagelig fordi den er tænkt til tuberkuløse patienter. Til gengæld tiltaler dens kurvature udtryk de fleste umiddelbart.



Alvar Aalto, 1929

Hvor Rietvelds- og Breuers stole er relativt statiske og retningsløse- eller retningsrige, udtrykker Aaltos stor, rumlig energi gennem kontrasten mellem vangernes rørformede rum, der klart angives sideværts, og det ophængte fjedrende plan, der indspænder det elastiske rum, der sættes i bevægelse fremad/opad. Hermed introducerer Aalto et helt nyt dynamisk element: fjedren.



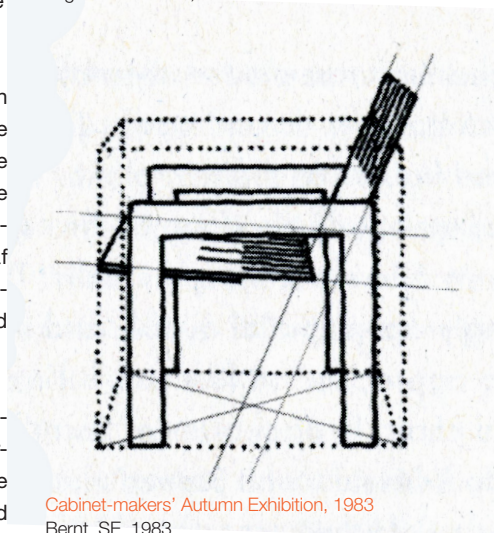
Aagaard Andersen, 'Cabinet-makers' Autumn Exhibition, 1979

Aagaard Andersen, SE 79

Trådene videreføres og trækkes sammen i disse to stole, der forener det uafsluttende rum og den fjedrende bevægelse. Bestræbelserne er de samme, men de udtrykkes dog vidt forskelligt. Rummet sættes først i bevægelse, når en person sætter sig, og graden afhænger af belastningen, hvilket er en næsten uløselig balanceakt. Vi er jo ikke alle lige tunge.

Det blev Aagaard Andersens sidste, men afgjort mest interessante forsøg i en række på at formulere kroppens negativt, rumlige aftryk. Her ved hjælp af bundter af ulimede askelameller løst ophængt på tværs i forhold til den siddende, som overraskes af den store elasticitet, der næsten virker paradoksalt, fordi stolens udtryk falder stift ind i rummets 3 hovedkoordinater.

Hvor Aagaardstolens lamel-mellemrum er ligedannede, udgår Bernts fra stolens to forankringsssarge og forløber trinvis i tiltagende åbenhed og dermed aftagende modstand

Cabinet-makers' Autumn Exhibition, 1983
Bernt, SE, 1983

The third of the great chairs, Aalto's Sanatorium Chair completes the pioneering age's range of chair categories.

Almost all experiments after the First World War are indebted to these three designs and the distillation of spatial, textural and technical qualities is far from complete.

Sadly, discussion of the values they represent often ends in the drawing of sterile distinctions between the aesthetic and the utilitarian. It is claimed that Rietveld's chair is unsuited for sitting. In fact, of the three, it is the most comfortable, because it gives the body the most beautiful and correct balance. I believe that the reason for the antipathy lies in the trick our brains play on us – that is, that what we see is what we feel. In this context, Aalto's chair is the least powerful, because the sitting angle is very open, presumably because it was intended for tuberculosis patients. But many people find its curvature appealing.

Whereas Rietveld's and Breuer's chairs are relatively static and directionless- or, rather, multidirectional – Aalto's chair expresses vast spatial energy through the contrast between the frame's tubular space that is clearly visible from the side, and the suspended springy plane that defines the elastic space, giving it both forward and upward movement. Thus Aalto introduces a completely new dynamic element: the spring.

The themes are continued and united in the Andersen and Bernt chairs, which also combine open-ended space with springy movement. The objectives are similar, but they are expressed very differently.

This was Aagaard Andersen's last, but certainly most interesting experiment in a series that attempted to formulate the body's negative, spatial imprint. Bundles of unglued ash slants are loosely suspended crosswise in relation to the seated person, who is surprised by the degree of elasticity that seems almost paradoxical, as the chair's expression falls stiffly within the three main coordinates of space.

bagud/opad i forhold til den siddende. Da endvidere de to planer krager frit ud, kan de to fjederbevægelser disponeres uafhængigt af hinanden, dette tilfører en overraskende åben rumlighed, og dens virkning er i forhold til Aagaardstolen mere umiddelbart aflæselig. Med sit udtryk er Bernts stol beslægtet med Rietvelds og Breuers store stole, men hvor deres kubiske rum er målsat efter 2½ engelske fod, er den omskrevne kubus i Bernts stol målsat efter en dansk alen.

Aagaards og Bernts stole er temmelig radikale både i udtryk og virkning, de peger frem mod en udvikling, der måske endeligt gør op med klunketidens fordækte polstringshemmeligheder, der med nutidens kunstofproteser kun er blevet værre.

MINE AFSLUTTENDE BEMÆRKNINGER

Jeg må vedgå, at jeg har valgt de 36 stoleeksempler ud fra min personlige opfattelse af arkitektonisk værdi og ud fra stolenes egennethed til at belyse den synsmåde, jeg har anlagt – på det upåagtede – det vi ikke ser, men som vi uafsladeligt befinder os i – nemlig rummene imellem og uden for de faste afgrænsninger, disse rum der kan formes på så mange måder, men alligevel er underlagt de samme regler, som kroppens absolutte krav til naturlige størrelsesforhold, sans for balance og stofflige kvalitet. Sindets mere vanskeligt definerbare behov for at noget går op – eller falder på plads.

Til dette studium er rumgeometrien et værdifuldt hjælpemiddel, fordi den på tværs af tid muliggør en faglig dialog med stolemagere, der arbejdede i Ægypten, Grækenland eller Rom. I den forstand er det, der blev lavet for årtusinder siden ikke mere historisk end det, der blev lavet i går.

Der er ingen uoverensstemmelse mellem det naturlige og det geometriske. En stol og dens rum bliver defineret rumligt og geometrisk, og det er ikke hensigten at man med hovedet skal forstå det geometriske. Det er hensigten at man med kroppen og sindet føler stolen naturlig – finder den smuk.

Jeg vil lade den franske maler Georges Braques få det sidste ord: ”Jeg elsker de regler, der retleder følelsen og jeg elsker også den følelse, der retleder reglerne”.

Erik Krogh, Charlottenlund, Maj 1984

1. Oprindeligt publiceret af Snedkernes Efterårsudstilling, 1984. Genoptrykt efter tilladelse
2. SE = Sammenslutningen Snedkernes Efterårsudstilling

Whereas the spaces between the slants of the Aagaard chair are equal, the openness of the slants in Bernt's chair increases in steps from the two anchoring crosspieces, thereby decreasing resistance backwards and upwards in relation to the seated figure. As the two planes are independent of one another, the two springy movements also work independently. This adds a surprisingly open spatial quality and its effect is easier to appreciate on first impression than in the Aagaard chair. In appearance, Bernt's chair is related to Rietveld and Breuer's large chairs. However, while their measurements of cubic space are in units of 2.5 feet, the circumscribed cube in Bernt's chair is to the Danish two-foot standard.

Aagaard and Bernt's chairs are rather radical both in expression and effect. They suggest a trend that might finally settle accounts with the secrets hidden beneath Victorian tasseled upholstery – a style which has become even worse, thanks to the synthetic padding of modern times.

CONCLUDING REMARKS

I have to admit that I have chosen these 36 chairs on the basis of my personal perception of their architectural value and the chairs' suitability for illustrating the view that I have presented. A perspective of what we do not notice, what we do not see, but in which we incessantly find ourselves: the spaces between and outside defined limits. These spaces that can be formed in many ways but always in accordance with the same rules – the body's absolute requirement for natural proportions, balance and material quality. And the minds less easily defined requirement that things fall into place.

Spatial geometry is a valuable aid in such a study because it facilitates a professional dialogue across the centuries with designers who worked in Egypt, Greece or Rome. In this sense, that which was made thousands of years ago is no more historical than something made yesterday.

There is no disagreement between the natural and the geometrical. A chair and its space are defined spatially and geometrically but it is not the intention that people should understand the theory behind the geometry. The aim is that, physically and mentally, we should feel the chair to be natural and believe it to be beautiful.

I will let the French painter Georges Bracques have the last word: “I love the rules that guide the feelings and I also love the feelings that guide the rules.”

Erik Krogh, Charlottenlund, May 1984

1. Originally published in 1984

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