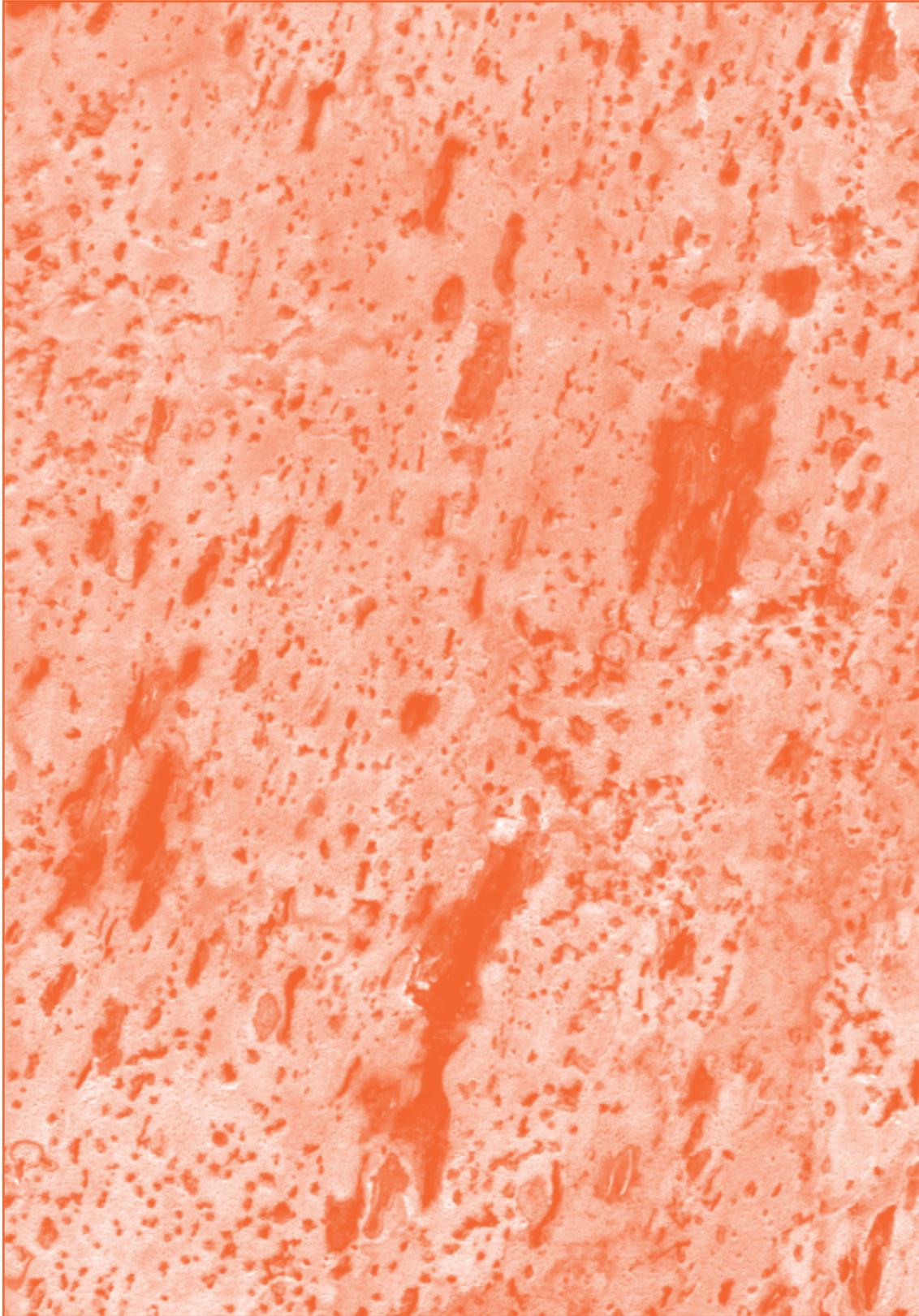


CORK, OAK & WENGE

Materials, Process & Provenance

by Joe Pipal



INTRODUCTION

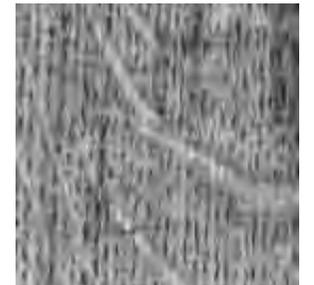
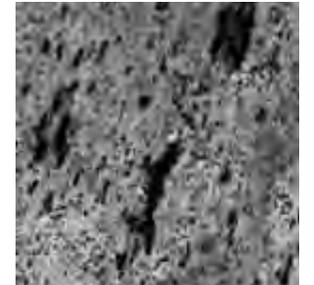
This body of work is primarily made with three materials: cork, oak and wenge. The cork is from Portugal and is used in its natural state in blocks and in the form of recycled bottle stoppers. The oak is also European and has been used for much of the joinery in the furniture and notably also for the bentwood components. Wenge is a wood from West Africa and in this work it comes in the form of reclaimed parquet floor blocks.

The work represents an opportunity for me to produce furniture using materials and techniques that I've learnt about and have enjoyed using over the past six years of being a furniture maker. By taking as my starting point the materials themselves the designs have evolved as a direct response to the constraints of the dimensions and properties of the parquet block, the cork block and bottle stopper. The logic of the repetitive use of the readymade components is something I have enjoyed working with in the designs. Elsewhere in the work I have also been mindful to produce components that could be used again in other pieces should the range continue to develop.

I want the roots of the work to be available for those who care to learn about how something is designed and made, and to know the origins of the materials. I have spent time investigating the provenance of the materials, to provide an additional social history of their lineage. This research is aimed at demonstrating in a more broad fashion that the built things around us have interesting and varied origins. I hope this will put my work into a context that accurately relates to the processes of production and my influences as a designer.

The research into the materials is also based on a belief that increased understanding helps us make informed choices, stimulates our appreciation and can protect specialist producers and techniques from dying out.

BELOW *from top; cork, oak, wenge*



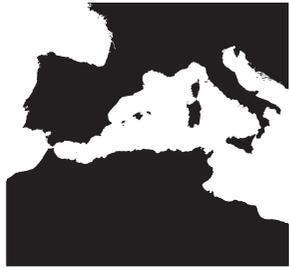
CORK

I remember as a kid the cork tiles in my dad's kitchen above the dining table. They were dark brown and all kinds of newspaper clippings, takeaway menus and photographs were pinned to them. Some years later, on holiday in Morocco, my uncle showed me a cork tree. He broke off a chunk of bark and sure enough it was a piece of cork. It's as simple as that, same stuff as the kitchen tiles growing on a tree!

My interest in using cork as a furniture maker came about through experimenting with bent wood lamination and testing out various materials that I could sandwich together in moulds. Cork is available in sheets, so was perfect for this exercise. In 2007 I received a scholarship to do a course about cork at Anderson Ranch Arts Centre in Colorado. There I learnt from a New York based furniture maker and huge cork enthusiast Dan Michalik more about the material and the cork industry. During this time I experimented with casting cork forms in moulds and developed further my understanding of its versatile properties.

Cork is heat resistant, a good sound insulator, buoyant, naturally elastic, and lightweight. It has lots of applications industrially based on these versatile properties, however the cork industry today is fundamentally still based on making wine bottle stoppers. When cork is harvested, by removing the bark, the trees are not damaged but naturally generate a new outer layer, which can be re-harvested approximately every 9 years. Sadly the increased use of plastic and screw top wine closures is threatening to undermine the cork industry. This decline has been well documented in the media and is quite a divisive issue in the wine industry, and some producers claim the switch to alternative closures is necessary to preserve the quality of the product.

Cork trees are a type of oak, which is native to a band of countries around the Mediterranean covering an estimated 2.2 million hectares.¹ This geographical distribution of the cork oak coincides with the cultivation of vineyards and harvesting cork has developed alongside this industry for generations. The cork forests also play an important role in the ecosystem of the region contributing to the fixation of carbon dioxide and as a natural habitat for a huge range of plants and animals.²



¹ Over half of the world's cork forests are in Portugal and Spain. Morocco, Algeria and Tunisia represent a further 37%, Italy & France 8%. Worldwide cork production is estimated at 340,000 tonnes.

² Portugal's cork oak forests represent a carbon sink of 4.8 million tonnes of carbon dioxide, 5% of the country's total emissions. Among the 700 plus animal species found in the Alentejo region in Portugal is the Iberian Lynx, considered to be the most endangered cat species in the world.



Records of humans using cork to seal vessels have been documented since the Egyptians. The ancient Greeks used cork for buoys and floats for fishing and on the soles of their sandals, as did the Romans who also used it to line roofs and ceilings. I've used cork in my furniture as much for the way it looks, as for its physical properties. I think cork is beautiful in its natural state and resembles the grain patterns of spalted or burl wood. It is also interesting to work with a material that has an elasticity and tactile quality, that contrasts so much with the properties of wood, but which at the same time can be machined and glued in the same way and literally comes from the same roots.

Stripping the cork oak. A delicate and skilled process, the cork is cut by hand with an axe to a depth just above the inner bark so as not to damage the tree. Harvesting takes place in the spring when the cork is growing a new layer which is still soft and the bark can be more easily removed.



LEFT Detail of the beautiful cork oak which is growing in the heart of London at the Chelsea Physic Garden.

RIGHT Detail of oak stool with cork bottle stoppers. The corks are used as a load bearing component, with the seat surface resting on top of them.

The cork bottle stoppers I've used in this work have been collected and saved for me by friends and family, but in the most part by the restaurant St John Bread and Wine. Their cooperation has been invaluable. I was inspired to approach them by their 'nose to tail' food policy as it has parallels with my ideas about utilising materials. Cork stoppers are a great example of a really well engineered component, which serves its purpose and is then discarded. I have gained a sense of satisfaction in saving them and giving them a new life in my work.

Traditional crafts have evolved using materials that are to hand and by re-using objects in ad-hoc ways. I think it is an impulse in anyone who makes or designs things to try and use standardised components or utilise what already exists. This has become a pressing ecological consideration as we are encouraged to re-use and recycle more, but historically from the point of view of a craftsman and designer, I think this is an instinctive motivation in us all.



OAK

The bent wood components in this furniture, such as the stool legs, have been made by glueing together layers of veneer. Veneer is made from thinly sliced pieces of solid wood. I have used oak veneer approximately 1.5mm thick, which is a constructional thickness of veneer produced with this sort of work in mind. This technique is known as bent lamination and is an alternative method to steam bending wood. Examples of laminated wood have been found from the 15th century, but it was in the last century that production methods and glues really developed and it became a widespread technique used in manufactured furniture. The oak veneer I have used was purchased and manufactured at Reliance Veneer.

Reliance Veneer is situated on the river Lea in Stamford Hill, east London, part of what was once a group of timber related companies that had used the river to receive deliveries of logs from all over the world. It has been the last producer of veneer in the UK for almost 30 years and sadly it is now closing the manufacturing arm of its business due to the current economic crisis. Reliance Veneer have survived previous recessions and they will continue buying and selling veneer but partly due to a collapsing export market they cannot afford to continue to cut veneer.

Cutting veneer is an industrial process that has had a fundamental impact on the way we use wood and design and build objects. Almost everything that is wooden and industrially produced will contain a veneered component somewhere. From classic bentwood furniture to kitchen cabinets, it is evident all around us. On a recent visit to Reliance Veneer I witnessed first hand the veneer cutting process for one of the last times there.

First the tree trunks were boiled in huge tanks for a couple of days to soften them, which makes them easier to cut. When they were taken out of the water they were black like charcoal and steaming hot, the bark and the vegetation growing on the outside of the trees giving off a seaweed-like smell. The trees I saw cut were a type of oak known in the trade as pippy oak. This refers to a defect in the grain, which is identified prior to the veneer being cut and has a desirable decorative figure to it. It actually looks a bit like cork. The steaming black logs were then forklifted to a huge outdoor band saw about the size of a bus, craned on and the blackened trunk carefully rotated and trimmed all around. This left the main body of the trunk exposed



Rotary cutting veneer from a log (section). The log is revolved and is offered up to the blade which peels off the veneer. This technique can be used to produce a single long shaving of veneer from a trunk, essentially unrolling the tree like a big roll of paper.



TOP RIGHT Log, branded with country of origin. 'S' shaped staples aim to arrest splitting as the wood dries. Reliance Veneer 2009.

TOP LEFT Outdoor band saw with a carriage for mounting the logs. Reliance Veneer 2009.

MIDDLE A bundle of rotary cut fifty oak veneer. Cut and dried. Reliance Veneer 2009.

BOTTOM Bent wood component for stool legs made with laminated oak veneer, which is then saven into the required leg dimensions. Plywood mould in background.



and raw looking. The undesirable blackened ends were removed with a grinder and the trunk was then ready to be cut into veneer.

Veneer can be made in different ways: it can be sliced, which cuts straight through the log and the growth rings of the tree and looks like a tree converted into boards. The oak logs I was watching were to be rotary cut, the other method of cutting veneer, a process I would liken to a pencil sharpener. This method produces visually distinct veneer as you are cutting around the core of the trunk and not through the growth rings. Practically, this means you can choose to slice much wider pieces of veneer than the actual width of the tree. For example, this is the way you cut the wide lengths of veneer used to make plywood. Both methods of producing veneer are very efficient uses of the tree in comparison to sawing wood into boards, as the blades slicing the wood produce no waste between cuts. Sought-after species of wood and interesting sections of trees are often made into veneer to maximize their use.

Once trimmed on the band saw the still hot log was moved into the machining warehouse. The head machinist has been working at Reliance Veneer for the past 38 years. After briefly sizing up the log, he harnessed it with a rope and gently swung it around with a crane to the rotary cutter. The activated machine clamped into



either end of the trunk with tremendous force, squeezing out hot liquid from its core. The log rotated and was slowly offered up to a razor sharp blade that peeled off thin leaves of wood with a satisfying crisp sound. The machine gradually drew the log closer to the blade so each rotation took off another slice 0.5 millimeter thick.

Seeing a tree trunk revolving horizontally in front of you is a dizzying sensation. The veneer came out of the other side of the machine in a cloud of sweet oak smelling steam and was laid up in bundles. The cutting was finished when the quality of the veneer deteriorated towards the core of the tree. What remained was a post, sometimes referred to as peeler core, the heartwood of the tree, which was left to cool, split and ooze sap.

Reliance Veneer has a unique place in the country's industrial heritage. Retaining the skills and capability to produce something as fundamental as veneer should be considered a priority, so we are not reliant on imports and can nurture people's understanding and knowledge of this process.

I grew up in east London. As a teenager, before I had any real interest in furniture, I can remember being taken to a workshop somewhere in Shoreditch by a furniture designer with whom I was doing work experience. They were making a table for him and we had a look at it and discussed it with the cabinetmaker. Even with no knowledge of what was going on, the experience of seeing this workshop and the production of a beautiful table was a fascinating process to witness, much like my visits to Reliance Veneer.

The images on this page are all adverts reproduced from the trade journal: WOOD; Forestry; Marketing; Application. October edition 1936.

TOP LEFT W.R. Green. Timber merchant specializing in hardwood parquet block flooring

TOP RIGHT The Times Veneer Co. Veneer manufacturers, in Edmonton, London.

BOTTOM RIGHT John Wright and Sons (Veneers) Ltd. Veneer manufacturers founded 1866, Mile End, London.

WENGE

The old parquet floor blocks I've used in this furniture are a species of West African wood called wenge (pronounced wen-gay). It is a very distinctive looking wood with strong contrasting dark and light brown shades which, depending on how it is cut, give the grain a beautiful and varied figure. It has been a sought-after timber for many years and is now, according to Friends of the Earth, an endangered species. Using reclaimed wood is generally thought of as an ecologically sound source of timber and there is seemingly a wide variety of species available. It is therefore a good way to get your hands on exotic hardwoods such as wenge, which as newly milled timber may not meet the requirements for fsc certification and whose sustainability you cannot otherwise guarantee.

The wenge I've used was generously given to me by a client, who had some left over having bought it for a floor in their house. When I began to use it for this work with the knowledge that it was reclaimed, I asked them if they knew from where exactly it had originated. They found out from their supplier it was from the Baltic Exchange and this set in motion my research.

1 In 1992 the Exchange was bombed by the IRA killing three people. The institution took up temporary home until establishing its current location in a smaller adjacent lot at 38 St Mary Axe.

The old building lay bomb damaged and empty whilst a long battle to save and rebuild it ensued. The building contained huge marble pillars, a stained glass domed roof and many beautiful interior fixtures, and was finally dismantled in 1998.

The Exchange was the subject of a massive salvage operation costing an estimated £4 million, which saw it dismantled and catalogued with the prospect that it would be rebuilt either on the original site or elsewhere in the city. This was not to be and the site was sold, developers moved in and Norman Foster's iconic Gherkin was built in its place.

The salvaged building was then put up for sale and with no buyer initially forthcoming eventually sold in 2005 for an estimated £700,000 to be one day rebuilt in Tallinn, Estonia. In the Baltic!

The provenance of reclaimed timber as well as newly milled timber is often hard to ascertain. As the Baltic Exchange was an important institution and listed building, the time I spent in libraries and archives searching for plans and references in building journals yielded a fair amount. I believe the wood was used in the lower ground floor wine bar of the annex built in the 1950s. However, as I researched the Baltic Exchange, I became increasingly interested in the history of the institution itself.

The Baltic mercantile and shipping exchange began life in a coffee house in the City of London in the middle of the 18th century. Its name reflects the importance of trade with Russia and Scandinavia at that time. Its members broker deals for the transportation of commodities around the world, as well as various services related to shipping, such as the purchase and sale of tankers, insurance etc. As worldwide commerce and the shipping industry grew, so the Baltic Exchange expanded and having established its status in 1857 by moving into South Sea House in Threadneedle Street, it then in 1903 commissioned a beautiful premises at 30 St Mary Axe. This building was expanded in the 1950s to meet a growing demand for space and trading continued there until the beginning of the 1990s.¹



What was remarkable to me looking back at the photographs and reading the articles about the old Baltic Exchange is that even in its relative recent history, up until the 70s and 80s the working practices in the building remained fairly unchanged. The centrepiece for the Exchange was a 20,000 sq ft trading floor, covered with a teak parquet wood block. Information about commodities, newspapers and the like were displayed on lecterns and notice boards. As technology evolved and was incorporated, some new systems developed. Telephone booths were added, and an internal beeper system for contacting members. An oval shaped bar called the grain ring around which people could receive information and do business was installed. What I find interesting is how in these systems the furniture and the architecture played an important role in facilitating the business at hand. The face-to-face dealing on the trading floor was deemed irreplaceable. I particularly like the look of the lecterns and notice boards and the idea of members gathering and referencing the display, checking to see what had been updated, and how this system for sharing information predated the role now played by the computer.

Meeting booths on the trading floor of the old Baltic Exchange circa 1950.



RIGHT Cork and wenge cabinet.

TOP LEFT Cleaning the concrete and bitumen from the wenge parquet blocks.

BOTTOM LEFT A stack of wenge blocks being prepared for the framework of the bench.

OPPOSITE Reproduction of a poster advertising the sale of furniture from "the baltic" at South Sea House, from the year 1900, before the "old" Baltic Exchange was built.

I can't help being nostalgic about the role of the furniture and architecture in the old Baltic Exchange and more broadly I think the institution represents a good example of the shift of emphasis from our physical experience of space, to a virtual one. I think it's good to take stock of the things that get left behind when such shifts occur in our collective behaviour. The furniture from the old Baltic Exchange represents to me a refreshing non-digital means of displaying information, which emphasises the physical qualities of human interaction and engagement.

By order of the Liquidators.

**"THE BALTIC,"
THREADNEEDLE STREET, CITY.**

**CATALOGUE
OF
THE VALUABLE FURNITURE
Fixtures and Fittings,**

Of this Historic Exchange, formerly known as "South Sea House,"

INCLUDING
The Contents of the large Subscription Room, Committee Room, Refreshment and Luncheon Departments, Offices, Waiting Rooms, and Apartments connected therewith; comprising a large quantity of solid

OLD SPANISH MAHOGANY,

Board Room, Writing and other Tables, Desks, Chairs, Patentia, Settees, Circular Lounges, Whatnots, &c., Plate Glass Wall Mirrors, valuable Clocks, Wind Dial, Marble and Silver Plated Fountain,

SOLID MAHOGANY SLOPING DESKS AND SEATS

ALSO
**THE MODERN PASSENGER LIFT, by Waygood & Co.,
SPANISH MAHOGANY & PLATE-GLASS PARTITIONING, WALL FITTINGS
TELEPHONE CLOSETS.**

The Marble & Glazed Fittings of Lavatories, Urinals & w.c.'s, by Finch & Co.
**POLISHED STEEL AND MARBLE FIREPLACES AND STOVES.
FITTINGS FOR ELECTRIC LIGHT AND GAS, MOTOR GENERATOR,
ELECTRIC VENTILATING FAN, and other Effects.**

Which will be Sold by Auction by Messrs.

HOBSON, RICHARDS AND CO.

Upon the Premises, "THE BALTIC,"
On MONDAY, the 1st of OCTOBER, 1900
At ONE o'clock precisely.

May be Viewed as follows: on Thursday, September 27th, and Friday, September 28th, after 5 o'clock; on Saturday, September 29th, after 2 p.m.; and on Morning of Sale. Catalogues may be obtained of F. W. PINCHBY, Esq., (of the Firm of Messrs. Jackson, Pixley, Browning, Hussey & Co.), of 58, Coleman Street, E.C. (one of the Liquidators); of Messrs. PAINES, BLYTH & HUXTABLE, Solicitors, 14, St. Helen's Place, E.C.; at the "Baltic"; or of the Auctioneers, Messrs. HOBSON, RICHARDS & CO.,

79, Coleman Street, Bank.

AN ESSAY

by Fiona Sibley

Fiona Sibley is a writer and journalist.

It is an interesting time for furniture, and for furniture makers. At a point when the mass production of furniture has reached market saturation, many buyers are left looking for something else - more direct, meaningful and simpler in origin than the production line that leads from overseas factory to shop floor. This isn't the only wind of change: from food to clothing to furniture, our growing environmental awareness is fuelling a desire to know the source and ecological sustainability of what we buy, use and eventually throw away, and to consider the implicit value of things beyond their pricetag. We're faced with a changing landscape of consumerism, and within that picture, there is scope for makers to play a role in helping us reconnect with the roots of what we own, to understand how and why these things enter our possession.

One part of the design industry has recently responded to a demand for the exclusive, the unique or the one-off by inventing the artificial notion of 'limited editions', the so-called 'design art' of mass-produced furniture sold in restricted quantities at inflated prices. But there's another reaction to this vogue, the very antithesis of this falsely engineered exclusivity. Instead, there is the growing generation of designers re-acquainting themselves with the making side of their industry, in order to create something, either in full or part, by hand. The work offered by this new generation of furniture makers is breathing new life into traditional techniques, showing the patience for making, refining and turning already beautiful natural materials into something valuable and useful, often to be sold locally. Established industrial designers, too, are expressing their desire to reconnect with the making process. In many sectors of the economy and culture, there is a thirst for this bigger picture, and it forecasts a renewed interest in well-made things.

Joe Pipal works as, and describes himself, a cabinetmaker, and this body of work reveals his focus on honing his craft skills in a contemporary context. Much of his practice is carried out as commissioned work, making furniture to fit a bespoke space or need, and working in this way has given him the space to exercise both design and making in tandem. The values of craftsmanship are, in counterpoint to our industrial norms, 'slow': each piece of work itself requires patience, but the end result contains the evidence of the hand, the single influence that selected and transformed the living materials into a finished object. Pipal is a



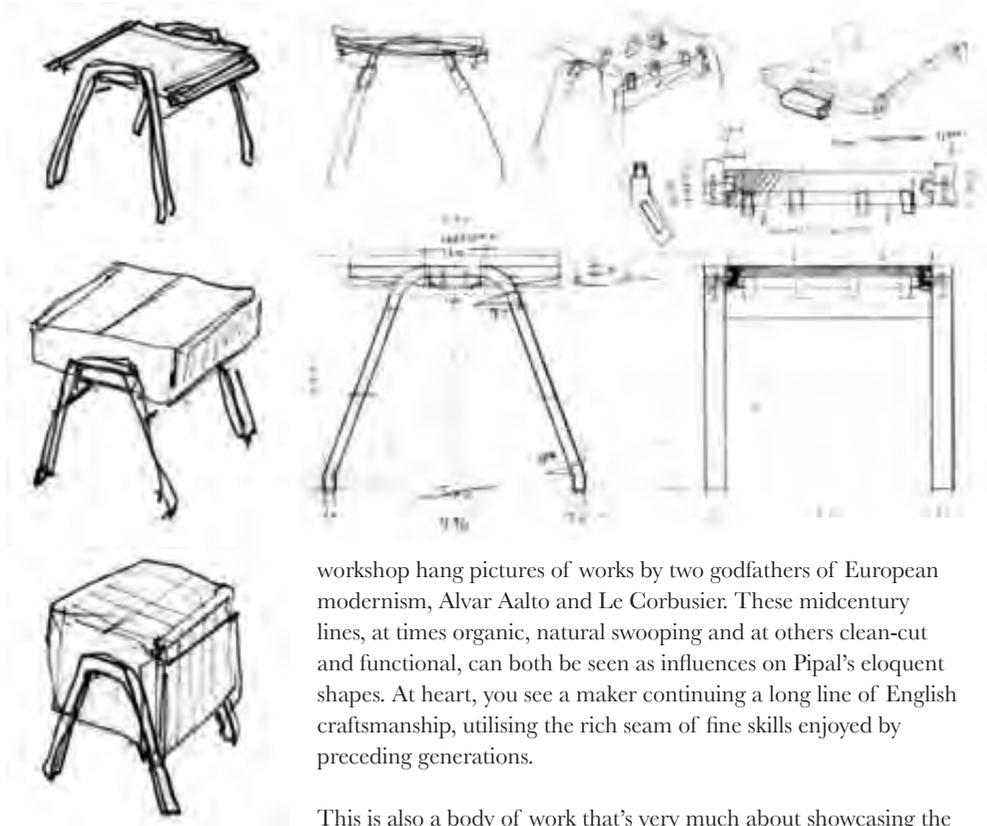
thoughtful maker, who is concerned not only with his process, but also with the provenance and values of what he is creating. This is evident from this work, and the way he has approached it. Unlike a designer taking on a new material and experimenting with pushing it in new directions, the collection is a way for Pipal to gather some of his most practised methods and showcase them at their very best.

Pipal's influences are typically international. He grew up in east London, one heartland of English furniture making, yet by the time he developed his interest in furniture those workshops were dying out. While rooted in his native city, Pipal's skills have been collected globally; he is enthusiastic about American craft schools, where makers of various disciplines gather to learn, share and interrogate their craft practice. He reserves much of his praise for Charles and Ray Eames' designs and more particularly, for their way of life and devotion to exploration and invention, creating the beautiful bent wood forms that he often deploys in his pieces. Around his



TOP Joints marked out and cutting begun for bench framework.

BOTTOM Corner detail of oak and wenge bench assembled prior to gluing and trimming of joint.



TOP RIGHT Sketches developing the design of the stool, showing details of the method of harnessing the seat surface and the cork stoppers to the framework.

ABOVE Three initial sketches for a stool, side table and small cabinet. A range of pieces using a common bent wood leg component.

workshop hang pictures of works by two godfathers of European modernism, Alvar Aalto and Le Corbusier. These midcentury lines, at times organic, natural swooping and at others clean-cut and functional, can both be seen as influences on Pipal's eloquent shapes. At heart, you see a maker continuing a long line of English craftsmanship, utilising the rich seam of fine skills enjoyed by preceding generations.

This is also a body of work that's very much about showcasing the beauty of materials. With this collection, Pipal raises several points about materiality. These furniture pieces combine three main woods: reclaimed African wenge, English oak veneer and Mediterranean cork. This tells immediate stories: the exotic and the mundane, the reclaimed set against the new, a confection of varieties from geographically diverse sources, with contrasting properties. Furniture made from one material has a purity, whereas in bringing together different types, immediately the maker is bringing together several different textures and ideas.

Pipal explains in his own words here his fascination for his raw materials, where his own supply has come from, its previous uses and how they are – in the case of cork, remembered as prosaic kitchen tiles when growing up in the 1970s – commonly perceived. This adds up to a reason for selecting these materials that is not just arbitrary, or influenced by fashion. In the case of using natural cork as a key decorative material, lending these cabinet doors a beautiful, earthy grain, Pipal is keen to advocate that this versatile, sustainable material has uses in a new aesthetic context. Similar proposals have been made by Jasper Morrison with a range of cork stools for Vitra,



and by Tom Dixon where, as creative director for Artek, he is overseeing the use of sustainable bamboo as a suitable modern furniture material.

ABOVE Oak stool rails (with holes cut for corks) clamped and ready to sand.

There can be few starting points for a body of work as thrilling to a maker as being gifted a bulk of dirty, reclaimed exotic hardwood, and then to discover its origin to be a building as historically important as London's old Baltic Exchange. A precious cargo indeed. Though such a find may seem rare, enthusiasts will attest that there are abundant supplies of used materials ready to be transformed, with no small investment of love and attention, to be given a new lease of life. (This will allow Pipal to sustain his practice in this vein.) In the case of the wenge, Pipal received a load that had been torn from the building, with bitumen and concrete chunks left clinging to this beautiful, almost ebony-dark wood. Seeing its potential, and designing pieces that would display the virtues of these modular tiles is only half the task: the other being the hard graft needed to clean and restore each floor tile to its original quality. In the case of such a special material, and to make a piece of unique furniture, the hundreds of hours needed to revitalise this valuable resource seemed worthwhile.

Pipal is not alone in engaging with used materials. While Piet Hein Eek may utilise a junk-aesthetic of rough-hewn timber to make



RIGHT Cork, oak and wenge. Detail from the underside of the stool seat.

his furniture, or Martino Gamper will play on the social values of reconfiguring old dining tables as a new piece of communal furniture, Pipal takes those materials and reworks them until they can be proudly presented with a polished new face, demonstrating that reused supply can have the beauty of virgin wood.

Growing up and now living and working in east London, Pipal is a metropolitan maker, with an aesthetic tuned towards a refined and distinctly modern, yet luxurious, use of wood. Pipal's practice is connected to both industrial and craft traditions, and this shows in his esteem for Reliance Veneer, his oak supplier and one of the last companies keeping the Lea Valley's industrial furniture heritage alive in this country. From this end of his spectrum of interests, right through to the other, which sees him gathering old wine corks from the St John restaurant in Spitalfields, he is creating connections between different sectors, based on common uses for these materials. Gathering up strands of history by choosing materials, then using them to generate new associations, is at the heart of what a good maker does, using the exquisite manipulation of tools and techniques.

Pipal knows that cabinetmaking, like any other craft discipline, is about having a specialism and improving on its practice until it reaches perfection. There is a sense in this work that Pipal values the tacit knowledge in his practice, his techniques, processes and materials coming together and being put to good use in the creation of something functional, meaningful and – crucially – of a value that will be enjoyed for a long time.



Many thanks to: Riccardo and Heather. Ernie at Reliance Veneer. Willem van der Pol at the Baltic Exchange. Amorim. St John Bread and Wine.

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Joe Pipal is a furniture maker from east London. He studied cabinet making at London Guildhall University and prior to that Fine Art at Nottingham Trent. His practice is based on making bespoke furniture to commission but he also devotes time to develop his own work and research.

He has been the recipient of a development award from the Clerkenwell Green Association (now Craft Central), scholarships to craft schools in Maine and Colorado in the USA and a 3 month residency to Cove Park in Scotland.