

Work Experience

Working for 12 months in the renowned Edward Barnsley workshop in the UK was a career inspiring experience for WA furniture maker **Nathan Day.**



Nathan Day in the Edward Barnsley workshop. Below are his first 'training' pieces: breadboard, bookends and dovetailed stool.

I was given the chance last year to work in the Edward Barnsley workshop in the UK after winning an Australian Overseas Foundation Scholarship*. After seeing a portfolio of my apprenticeship work, James Ryan the workshop manager and designer offered to apply for my work permit and put me on as a paid trainee for a year. I was to be the first paid trainee and the first Australian to be trained in the Barnsley workshop since it started in Hampshire in 1923.

My traineeship entailed three months intensive training with pieces completed entirely by hand, progressing onto machines and building commissions and pieces for stock. All pieces were to be made from start to finish, to Barnsley standards, and the traditional methods would soon become very apparent. Hand tool tuning, waterstone sharpening and developing hand skills to a high level featured early on. The training also included comprehensive machine maintenance, advanced jig making, developing full working drawings and cutting lists, vacuum forming and pressing, and forming curved components using male and female formers.

First pieces

My first piece was an octagonal breadboard and for this job I would need a well-tuned No.7 plane. This was a tool that I had never used before and I have since found out just how useful and versatile it can be. I was to use only the No.7 and a handsaw to produce the finished piece, no sanding before oiling, straight off the plane.

Flattening and polishing the sole of the plane was followed by grinding a slight convex curve in the blade and lightly hollow grinding the back to allow for easier flattening. Then sharpening the blade using Japanese waterstones and micro-finishing film before adjusting the mouth and setting the blade.

Preparing timber by hand seemed such a strange thing to do when there was an immaculate machine shop in the next room. It was also hard work. I had to take off 10mm with the plane to get the twist out, rough the shape out with the saw and then fine-tune each side until I had a perfect octagon. This was hardcore woodworking. Each side then had a 25mm chamfer on the underside and a slight round to soften all the edges. After a day and a half it was ready to be stamped with the official Barnsley stamp and its first coat of oil. A truly proud moment.

The next few pieces continued in this tradition. Firstly two sets of bookends with hand-cut through dovetails, one with a nice little mitre on the front and back corners. Hand-cut dovetails?? Again an old concept that was new to me. I have



cut hundreds of complex dovetails in the past using a router, lapped dovetails that are only seen on the face and can be fitted beautifully by tapering the backs slightly, but when they come through the other side they are truly unforgiving and require a new level of skill and precision. It was a sad moment when I was asked to cut the pins off and have another go, twice. Two weeks later though, two sets of bookends with absolutely perfect hand-cut dovetails.

Next was a small stool with angled ends and through and wedged tenons in olive ash, followed by a beautiful mostly hand shaped table lamp and a dovetailed stool. I then made a number of wall mirrors in various timbers and a load of breadboards for the workshop's annual open weekend in May. So much care is taken in every piece and every detail that I was even shown how to solder the joins of the hanging wire on the backs of the mirrors. Just a nice little touch that shows that little bit of extra workmanship.

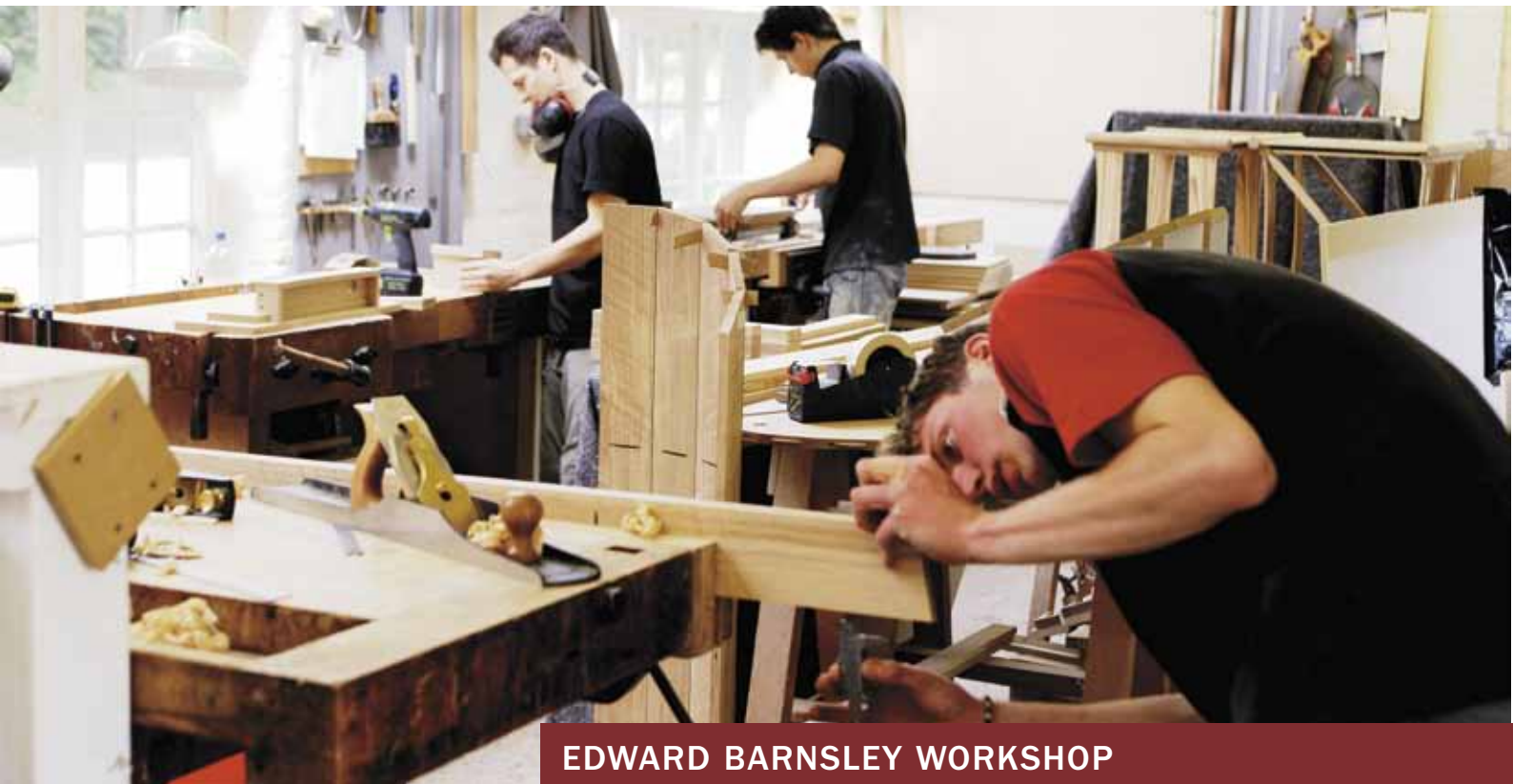
Notes and photos

This whole time I was writing notes and taking a lot of photos. Notes on little things I had been shown, clever little tricks and ideas, new techniques and new products. Photos of the craftsman's machine setups or a clever jig that they were using. I was going home every day feeling as though I had just learned the

most useful thing ever only to go back the next day and come home feeling the same about something else. Many of these skills had been developed, passed down and further developed over nearly 100 years by the craftsmen in this workshop, and I was lucky enough to be on the receiving end. There was so much valuable information here that I just didn't want to forget anything, so notes and photos were my way of ensuring I didn't.

With my practice pieces out of the way I finally got to build some commissioned pieces of furniture. My first project was three nests of three tables and two bedside tables based on the same design, with matching table lamps. These were in assorted timbers including rippled sycamore, olive ash, brown oak with elm detailing, and Macassar ebony with sycamore detailing. It was quite nice to be using such a variety of timbers when I was used to using only two or three, with about 90% of the furniture I had built being in jarrah.

I learnt a lot on this project. It introduced me to veneering and lippings, of which I had had little experience, a lot of operations on the spindle moulder with some advanced jig making, and even a little steam bending. Each table had four curved legs which were laminated and veneered using a former. This technique is one of the things that I have been particularly excited about, something that I will use to produce and develop my own designs in the future.



EDWARD BARNSLEY WORKSHOP

The Edward Barnsley Workshop in Froxfield, Hampshire UK, is very training oriented. They take on one new apprentice each year as well as fee paying pupils who can pay up to £350 per week. The training emphasises handwork and getting hand skills up to the level that is required in the workshop.

The workshop keeps alive the ideas of the Arts and Crafts movement which Edward Barnsley played a significant role in continuing as he established himself as one of the leading designer makers of his time. His father Sidney and uncle Ernest had been inspired by William Morris and embraced his radical ideas. Today the workshop builds new and contemporary one-off pieces using a combination of traditional and modern techniques while utilising the most up to date technologies. For more information visit www.barnsley-furniture.co.uk





Nest
Olive ash



Working to commission

The next six months in the workshop were spent building two pieces of furniture commissioned by a Lord and Lady for their London home. The games table in American cherry shown below was to have a double-sided top; one side veneered for use as a sitting or breakfast table, the other side with a baize surface for playing cards. It would also have a hidden drawer, a custom made lifting

GAMES TABLE

I started by constructing the table itself. Fairly straightforward! It incorporated some veneering and inlaying of the drawer runners and some solid timber shaping of the legs. The joinery was a mix of dominos, dowels and biscuits.

The real fun began with the veneering of the top and the lifting mechanism that transformed the table to a card table. Given that the top would, in a sense, be floating it was imperative that it stayed perfectly flat. The top was veneered in a rather simple pattern that required, however, absolute precision in its execution. Given the irregular grain pattern in the timber veneers, if they weren't exactly where they needed to be and matched up perfectly, the look of the whole top would be ruined and need to be redone. With careful planning and even more careful workings the end result was perfect.

The underside was then veneered with the same grain orientation to counter balance the top and ensure flatness. I then applied the green baize and the top was finished with a dark walnut edging that was mitred and glued on the top surface and fastened with polished brass screws on the underside to allow for easy servicing and repair of the baize if it were to be worn or damaged.

The two lifting mechanisms were placed either side of the drawer box. Each mechanism consisted of aluminium u-bar, a gas powered spring and a cam. The idea was that once released, the front edge of the top would be lifted 25mm above the front rail so you could comfortably get your fingers underneath to lift and turn the top over.

This took over a week to accomplish with many mock-ups and trials failing. The springs also had to be returned to have the pressure set correctly. Too much pressure meant the top was lifted too fast and abruptly, too little meant that the top was not lifted high enough to get your fingers underneath and get a comfortable grip. The calculations were critical as were the pivot points and shape of the cam. A testing exercise, but a stunning result!



mechanism for the top, and a hidden handmade catch.

The second piece would be a chest of five drawers in rippled sycamore with a walnut inlay (see below). This piece would really introduce me to fine cabinetmaking. The drawers would range from 175 to 230mm deep and 365 to 750mm in width, with hand-cut through dovetails in the backs and hand-cut lapped dovetails in the fronts. Traditional drawer slips and muntins would be used, both with a fine-scratched inner detailing and cedar

of Lebanon drawer bottoms. Inlaid Brazilian rosewood runners and traditional rosewood drawer stops were specified.

Every new piece of furniture begins with a 1:10 scaled drawing by James Ryan. From this the maker produces a series of full sized working drawings and develops the cutting list. The timber for the job is cut out up to a month before work begins and brought into the workshop to acclimatise. Timber may also be dressed oversize so any natural distortion in the timber can be machined out once construction begins.

Both these pieces would be delivered by Christmas 2006 and work on them began in June. I made the games table first so I could 'practise' making a small drawer on this piece, rather than being thrown into the deep end by making five large drawers.

My last 12 weeks in the workshop were spent building a jewellery box and a beautiful chair in American walnut. Building a chair using Barnsley methods and techniques was of great value to me.

CHEST OF DRAWERS

The success of the chest of drawers would depend largely on a polished hand dovetailing technique as there were 120 to be cut in the drawers alone. This was the one thing I had struggled with to this point. Two hours of intensive coaching from one of the workshop craftsmen and some practice and I had it down, cutting and fitting the tails straight off the saw with very little cleaning up.

The carcass was all rippled sycamore veneers on the outer face with four curved solid legs joined at 45° to the sides. The problem in executing this joint was applying the correct pressure in the correct position to get the joint to close up.

With the legs on, runners inlaid and carcass together and cleaned up, work began on the drawers. The solid sycamore drawer fronts had already been selected and machined down to 3mm oversize. Along with the rest of the drawer timber—quarter-sawn oak selected for its stability—they had been strip-stacked in the workshop one month previously to acclimatise.

The finishing touches came in the simple handles, shaped into the drawer fronts, a 1.5mm walnut inlay in the top and a neatly finished panelled back. The Barnsley badge that is a trademark of all one-off commissioned pieces was set into the back rail and the piece was complete.

We delivered the chest of drawers and games table to their new home much to the delight of the clients. The Christmas deadline was met, which meant that when I returned from the break it would be a new year and a new job and only 12 short weeks until my time in the Barnsley workshop would come to an end.



WALNUT CHAIR

This chair design had been built only once before and was one of the most comfortable that I have ever sat in. The combination of curves in the seat and crest rails and the curve and shape of the back bars hit all the right parts of your back. The chair was described by many in the workshop as like sitting down and getting a cuddle.

All the curved rails in the chair were formed by laminating 1.9mm re-sawn walnut veneers. The main joinery was a combination of dowels and dominos and the back bars joined the seat and crest rails using small mortise and tenons.

Fitting the back bars into the crest rail was the most complicated part of the job. The seat and the crest rails had a different radius, the outside and the inside back bars had different curves and the crest rail leaned back on a 22° angle. This meant that the back bars splayed out and twisted around and into the crest rail and all the angles compounded.

After much debate it was decided the best way to proceed was to fit a dummy crest rail and notch out the parts of the rail where the bars would finish. This meant that I could scribe a shoulder line and mark the angle and direction of the tenon.

Small scooping rounds between the back bars and diminishing rounds that flowed from the front to the seat rail on both sides enhanced the design and finished the chair off. It was given three coats of oil and fitted with a tan leather seat.



Looking forward

The year was probably the quickest of my life and the most enjoyable time I have had as a furniture maker. I was privileged to have the chance to learn from some of England's finest craftsmen in one of the country's most sought after furniture training workshops. I feel it is now my responsibility to push things forward and share what I have learned with others here in Australia and make some beautiful furniture.

The experience was career inspiring and introduced me to a new level of quality and design. I have an amazing new set of skills that I can develop further and adapt to our environmental conditions and our timbers. I have returned with a new found energy and motivation to start working for myself, putting together many years of sketches and ideas and developing them into new and exciting completed pieces of furniture.

I have rented workshop space in an established workshop in Yallingup, WA, and have put together a portfolio to show potential clients what I am about, and to tempt them into placing an order. I am also teaching furniture making at TAFE two nights a week.

In WA I have access to a great supply of local hardwood, but I have never liked being limited to two or three different timbers and want to start using other native timbers from around Australia. My time overseas showed me that using many timbers has huge benefits for design and from a client's point of view.

I am particularly excited about having the chance to one day offer work to other Barnsley trained craftsmen. Given that I hope to eventually have enough work to be able to employ and train people, the experience that everyone will get from spending time with these craftsmen will be immense.

**Australian Overseas Foundation provides scholarships to young vocationally trained Australians to gain knowledge and experience in their chosen field.*

Visit www.aof.org.au for more information.

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