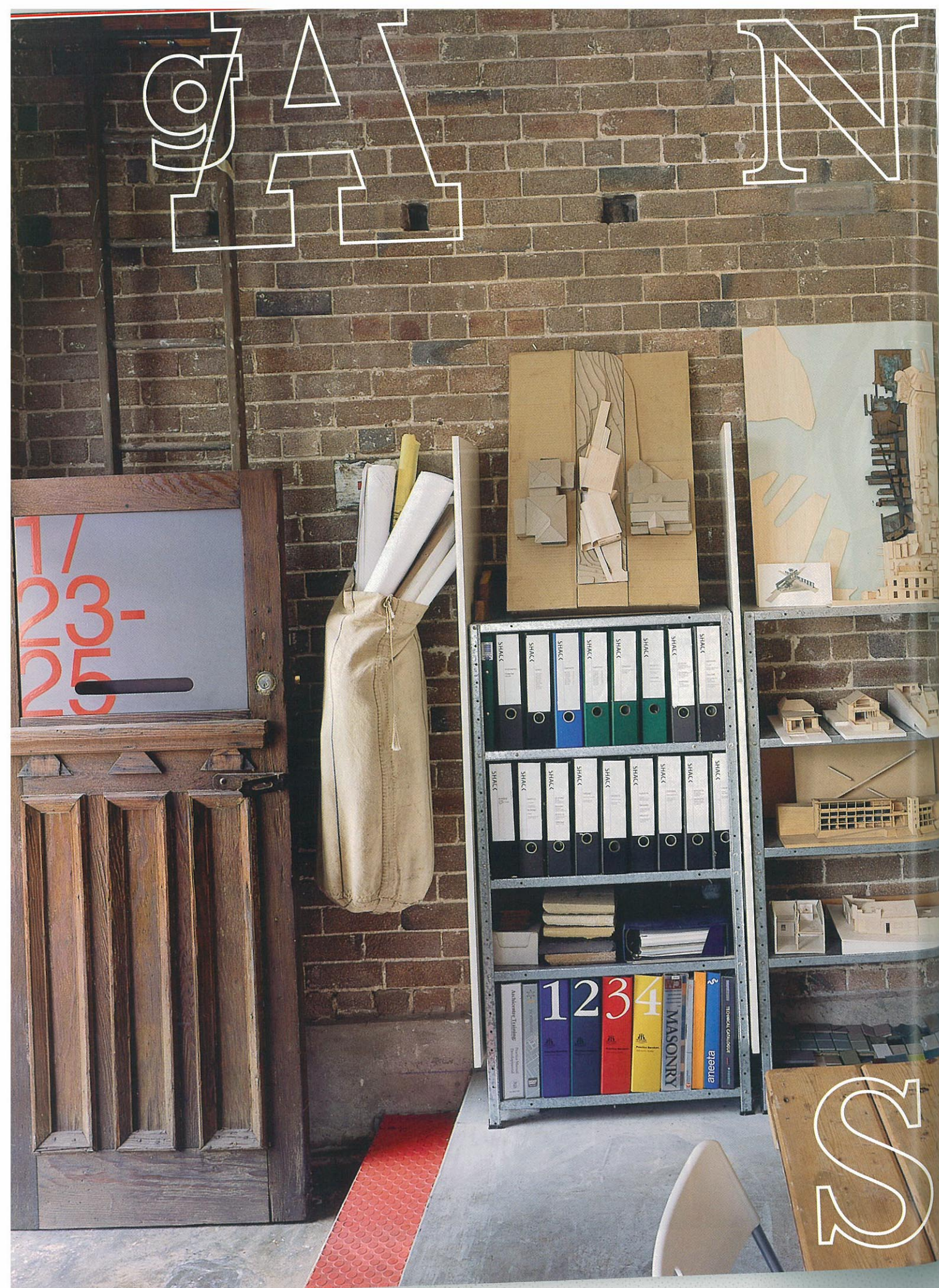




# It's Evolutionary



Neil Mackenzie and Heidi Pronk discuss the plans for their warehouse conversion at the office meeting table, created from fabric from the old dunny doors of the motorshop.



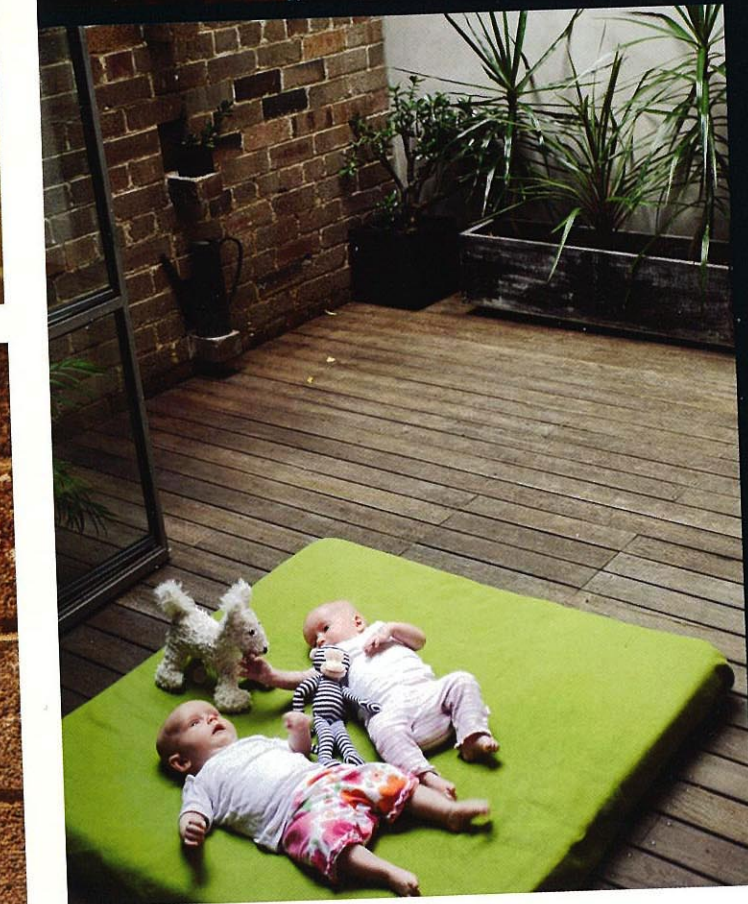
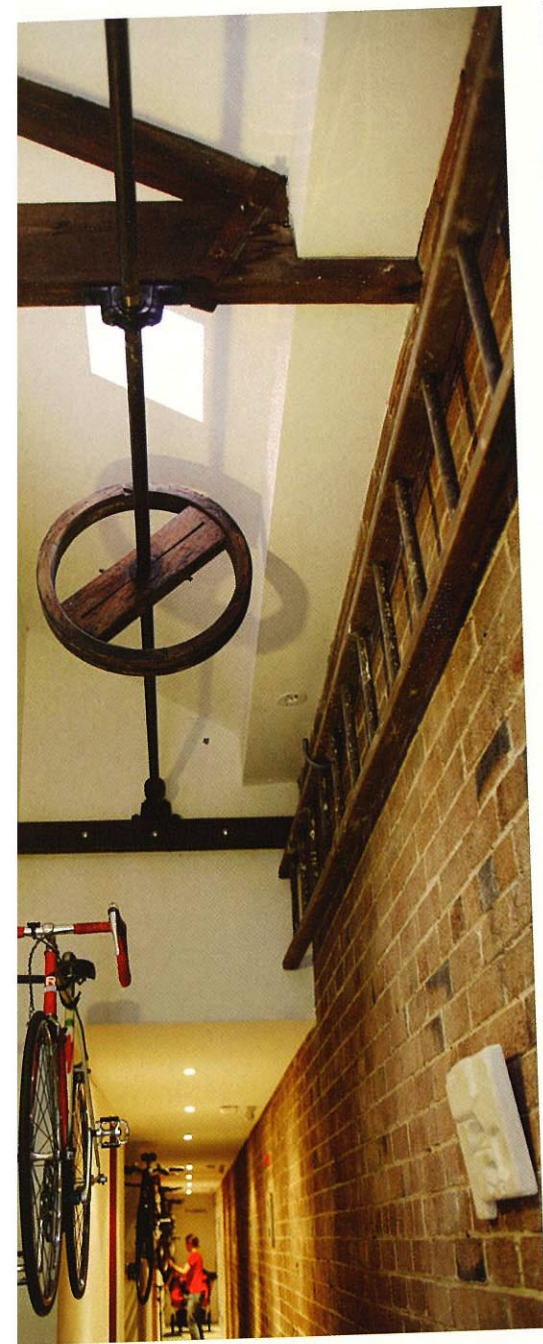
The shopfront office space features some original materials such as ladders and an old vice. The space has a mezzanine level (**opposite page**). Steel framed windows face north illuminating the apartments reducing the energy consumption (**top**). The bedroom space is open plan. The original trusses have been re-used and provide a functional and aesthetic feature (**bottom**).



re-used and provide an aesthetic feature in both the office and the apartments. To gain light for the apartments' north-facing courtyard voids were created by cutting into the original walls, and the demolished bricks were cleaned on-site and used to raise the wall height. This reduced building costs and at the same time retained the patina of the walls. The bricks were also used to create feature walls in the courtyard of the apartments, and small jutting platforms to hold objects and plants.

The heavy thermal mass of the original building's triple brick walls helps control the internal temperature of the space, while a corridor running the length of the building cools the apartments. The south-facing wall stays cooler as it is not directly heated by the sun and this cooler air flows into the apartments, which all have solar hot water. Only the office has an air-conditioning unit and this is rarely turned on as fans are used for additional cooling of the apartments. The building has been insulated beyond minimum requirements for both thermal and acoustic performance. The north-east facing courtyards funnel breezes which are drawn up and through the spaces to the skylights of the upper level.

Contemporary finishes and materials have been combined with the original fabric in the apartments, where steel beams contrast with the timber and masonry. The courtyards are created to provide a large indoor/outdoor feature room, which can be enclosed by means of steel-framed glass screen doors. Hoop pine veneer, from environmentally sustainable farmed forests, has been used for the services and kitchen cabinets, and recycled timber beams and floorboards are used throughout. All materials and finishes →



An old fanshaft is a feature in the common corridor shared by the three apartments. The corridor is protected from direct sunlight and is a tool for the cooling of the three apartments. Glass cantilever doors open the courtyard to the indoor rooms creating a versatile living space. The space built by five friends has created a warm space where family and childcare responsibilities can be shared. The courtyard fill with light. The heavy thermal mass of the bricks helps maintain a moderate internal temperature.

have been planned to last. Because storage space is limited in these small apartments some practical ideas have been used: bicycles hang from hooks in the corridor and the box of services in each apartment contains a laundry and pantry.

Three families live in the complex, which has created a community of friends who conduct independent lives while still enjoying each other's company. Having their architectural practice in the building means Heidi and Neil are responsible for zero transport emissions getting to and from work.

The project is a successful, sustainable and adaptive re-use of an old industrial building. It retains a tangible memory of its past, marrying this to the introduction of clearly contemporary new apartments. The original building's assets, for example the thermal mass of its walls, have been used to enhance its environmental sustainability. The work undertaken is an exciting contribution to the evolution of the building.



Zero

**Five architect friends have created their own inner city micro-village by recycling a former factory into three apartments and an office.**

This story begins when five architects, a group of friends with common interests, decided to look for a warehouse space to convert to a share apartment complex and at the same time enable them to enter the competitive Sydney real estate market. They searched for two years before finding an appropriate building, No. 23-25 Egan Street, Newtown, an old sheet metal factory built in 1922.

The project team – Julie Mackenzie, Neil Mackenzie, Heidi Pronk, Jason Veal and Kieran McInerney – combined their expertise to create what is virtually their own micro-village. Three apartments and an office space have been constructed on a relatively small site, eight metres wide and twenty-seven metres long.

In the conversion process the group has managed to preserve the old building's heritage values, retaining memories of its past through the re-use of significant fabric: the recycling of materials from the site further addresses issues of sustainability. The building was last used as a motor repair shop and the original signage has been retained, which recognises its contribution to a diverse streetscape. The street façade is simply decorated with face brick and features a parapet and the patina of age that characterises the building has been carefully maintained.

It is now the site of the office of Mackenzie/Pronk architects. The office space retains the original ceiling and roof height in full sympathy with the streetscape. A steel-framed window has replaced the original roller door, unashamedly a contemporary feature but demonstrating clear



The office door of the old motorshop has been repositioned as the front door of the office.

evidence of the building's past uses. The size of the window provides an abundance of natural light which reduces energy consumption. The front door to the office is the recycled internal office door of the motor repair shop, and fabric from the old dunny doors has been used to create the office meeting table. Some items have been retained just for their aesthetic appeal – old vices and ladders which hang on the walls – while other items, including the motor shop's original lights, still have their practical uses.

The height of the roof posed a problem for the incorporation of the three apartments. They are small, being seventy square metres, and have two levels so it was necessary to raise the roof 600 millimetres. The original trusses were →



MECHANICAL  
REPAIRS  
Spray PAINTING

Architects:  
Neil Mackenzie, Heidi Pronk, Jason Veale, & Kieran McInerney, Architects in Association  
Interior Designer:  
Taylor Thompson Whitting  
Fire Engineer:  
Acoustic Studio  
Structural Engineer:  
Warren Smith & Partners  
Contractor:  
[unreadable]

Design Consultant:  
[unreadable] (builder John Pullan)

Reduced transport emissions due to the location, the reuse of existing structure and use of recycled materials is the most sustainable design strategy of the development. The existing triple brick shell was largely retained as external walls for the studio office, avoiding almost completely the cost and energy use of new external walls. Existing trusses were retained for the primary roof structure. Recycled red ironbark was used for the new floor structure and floor joists. Recycled red ironbark veneer (sustainably forested in Queensland) was used for new joinery. The walls were painted with 3 coats with liming white.

