

Roof gardens offer an urban oasis — and a bit of natural air conditioning. **Caroline Donald** gets upwardly mobile

bucket full of empty bottles sits in the finale of Tom Rob Smith's rooftop garden in Bermondsey, southeast London, and the author is looking a little bleary-eyed. It is the day after the launch party for his latest book, *Agent 4*, the third in a trilogy kicked off by the bestselling *Child 4*, which follows the adventures of Leo Daniels, a secret service agent in Stalinist Russia, now living in America. A film of *Child 4* is in the pipeline, to be directed by Ridley Scott, so there has been much to celebrate.

"The sun came out — it was really lovely, so we had people up here admiring the plants," says Rob Smith, 30, who shares the two-bedroom flat on the top floor of the former Hartley's jam factory with his boyfriend, Tom Stephenson, controller of commissioning at BBC drama. The view from the garden is panoramic, taking in swales of the capital, with the majesty of St Paul's Cathedral and the week-in-progress Shard dominating the skyline to the north. It is worth coming up here for the view alone, although it is not one you always want to see: a few weeks ago, he watched fires burning in three areas of the city during the riots.

Although the couple have to share the roof with other residents, each flat has its own section. Rob Smith's area (which measures about 6m by 20m), reached by a hatch and glass stairs in the sitting room, is so densely edged with plants that you hardly notice the others.

The garden was constructed two years ago by a contractor using special lightweight soil for the borders. Its first incarnation was mainly made up of grasses, "but was very austere," Rob Smith admits. The garden was then hit by the terrible winter snow of at least half the grassed die. It came up here in January or February and there were holes everywhere. It was bleak.

Despite having something that now resembles a Siberian steppe, Rob Smith, equipped with little knowledge of gardening, he ploughed out: "You can either give up or try to make a 'your own.' So, no more fancy contractors; he and Stephenson just helped in what they liked. "We thought, 'We don't care, we just want poppies and colour, anything that will grow.' It is hard to know what will take up here, as it is really so hot and sunny, it can be very dry, as the topsoil dries out quickly."

While there have been failures, the successes have been many. Along with those grasses that survived, spiky spiky Verbena *bonariensis* has become the delicate claret buds of sanguisuga, and an early, vibrant lavender, cornflowers and now in the mist all drive in the hot, dry conditions — after all, there is little shelter from the sun. Survival of the fittest has produced a colourful, meadow-like garden.

Outside Rob Smith's study, on a narrow balcony that runs round the building, is a different area, which was bought ready-planted with wild flowers, then nibbled like rock. "We've planted in the gaps, and now it is just a middle of things," he says — though,



The author Tom Rob Smith on his roof garden in Bermondsey, south London



A colourful meadow has evolved by trial and error on Rob Smith's roof

again, the randomness of his planting has worked out well. "It soaks up the rain and cools everything down."

Rob Smith's wild-flower strip may be small, but for everyone who had such a space in the city did the same, the cumulative effect would be impressive. That's Gedge in an expert on green roofs who is working with the mayor of London and other authorities. He is on a mission to plant up all the space going in the capital, he says: "About 20% of the land area of central London could be greened — it is a guarantee, I would say only to be already."

Even the Prince of Wales's Prince's Foundation is getting involved in encouraging people to use their roofs. It has prepared a design plan for a new neighbourhood at Whitnagar, near Battersea, in Hampshire, which is awaiting planning permission. All the houses in the densest part of the development have growing spaces — a rooftop, a window box or a small front garden.

A green roof can be anything from a sedum mat or a vegetable plot to a full-on forest, with trees, shrubs and tender-planting — as opposed to "roof gardens", which Gedge considers to be a collection of plants growing in pots (though these have their role, too — some plants are better than none). Most suburban housing has sloping roofs, which are unsuitable, as they are built to hold only 30 degrees, or they are greater, as you need to incorporate more drainage to stop the soil sliding off before the plants establish a root system.

It is not just about making a city look prettier and providing food and habitats

THE PANORAMIC VIEWS ARE NOT ALWAYS — DURING THE RIOTS, ROB SMITH WATCHED FIRES BURNING IN THREE AREAS OF LONDON

for wildlife: living roofs also play a role in cooling down our cities. On a hot day, as Rob Smith has found, the plants lower the ambient temperature: think of how best rises from asphalt in summer, and how much sun dark roofs soak up.

They also act like a natural air-conditioning system for buildings. Having vegetation also means that rainwater doesn't bounce off hard surfaces straight into the drain, but is captured in the soil, to be released slowly by the plants.

Up in Newington Green, in north London, staff at Justin Bree's architectural practice (bree.co.uk) often sit on the roof for lunch on a sunny day. On a grander scale than Rob Smith's — the total space above the building measures 1000 by 200m — the garden is divided into four distinct areas.

With much less soil, Bree and I climb together up to a delightful wild-flower meadow, planted by Gedge and filling

the whole of one section of roof. We teeter precariously at the edge so as not to squash the flowers or native insects. It is an ambitious project, but heartening, in that it adds life and greenery to the roof of the former sausage factory, which sits at the centre of a giant D-shaped at the back of a crescent of shops and cafes.

Bree was inspired by reading the *Diversity of Life*, by Edward O Wilson (1992), an American biologist. "It is about the symbiotic relationship between all species, and one of the best books I have ever read." Coupled with a thousand desire to live in the country and running an architectural practice that is thoroughly ecological in attitude, "all these things came together to make me feel I should be doing something that builds an ecosystem."

■ **The DIY Guide to Green Living Books**, an ebook by **Dusty Gedge** and **John Little**, is available for £11.95 at livinginfo.org. For suppliers, see the sister site greenlivingfirst.com

■ **My Garden, the City and My: Inspiring Adventures in the Wilds of London** by the beginner roof gardener **Helin Hobbs** (Timber Press £9.99) is all about you, but it should inspire you to get started — it is free-draining and lighter than normal; he then tells it if it deep below planting. It is possible, Gedge says, to have a substrate as thin as 10cm, which is the lowest the government's green roof code recommends, although this works best for drought-tolerant plants, rather than a full-scale wood such as Bree's, with less than three things teeter on top and the plants die. "The lightest is not the best," Gedge says.

So what are the most important things when considering installing a green roof on top of your building? Check out its load-bearing capacity — it should be able to handle 100kg per square metre, although it must be sturdier if humans, as well as plants, are going to be occupying it on a regular basis. You should also ensure that the roof surface is waterproof and resistant to attempted attacks by rooks, Gedge says.

Once covered by soil and plants, however, "if the waterproofing has been done really well, you probably won't have to replace it — it should be protected against the elements". The perfect place for green ideas and blue-sky thinking.

■ **The Chelsea Physic Garden**, in London SW8, is holding an event below the glass roof, from noon-6pm, to celebrate its 300th birthday. There will be eco-friendly demonstrations, talks and tours. Entry £8. www.chelseaphysic.org.uk

■ **Orchid hunters** The National Botanic Gardens in Wick, in Lincolnshire, Carmarthen will host an orchid festival on Saturday and next Sunday, 10am-5pm. Entry free; garden admission £8.50. gardens.wednet.org.uk

■ **The Little Show** Celebrate late season at the National Gardening Show, which includes giant vegetable displays and garden shows. It is held at the Royal Bath & West Showground, in Frome on Friday to next Sunday, Entry £8 in advance or £10 on the day. 01474 822200, bothandwest.com

■ **Caroline Donald** caroline-donald.com

ST Take a 360-degree tour of Bree's 100th roof garden. thesundaytimes.co.uk/home

WORMLAND'S WEEK

- Once lonicberries and dahurians have finished fruiting, prune the spent canes to just above ground level.
- Plant "prepared" hyacinth bulbs in indoor pots and bowls for flowering around Christmas time.
- Take cuttings of border panensoms and leave to form roots in a cold frame or on a kitchen window sill.
- Cut down any fading flower stems of feverfew (Tanacetum parthenocum) to stop these vigorous plants self-seeding all around the garden.
- Check greenhouse tomatoes are not covered in yellowing leaves, especially near the bottom.

Reader's question

Is it too late to sow salad rocket? P. Wrenne, Bury

This fast-growing plant can be sown outdoors in late summer or early autumn, and thrives on the vegetable plot and in containers. For a healthy crop, sow the seeds (5in deep) in a well lit or partially shaded spot and a moisture-retentive but well-drained soil. Once they germinate, thin the seedlings to about 6in apart. Harvest the peppery-flavoured greens as cuttings or come again basis when they are 4in-6in long; pop cuttings over the top of the plants in a dry area.

Neil Barnard

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GARDEN CUTTINGS

Spice up your life

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