



Above: Sennowe Park, Norfolk, and **right:** the dynamo room at Ardkinglas. The switchgear panels were faced with marble.

Upstairs downstairs

Brian Roberts discovers the building services riches that now lie neglected, but were an integral part of country house life in the England of yesteryear.

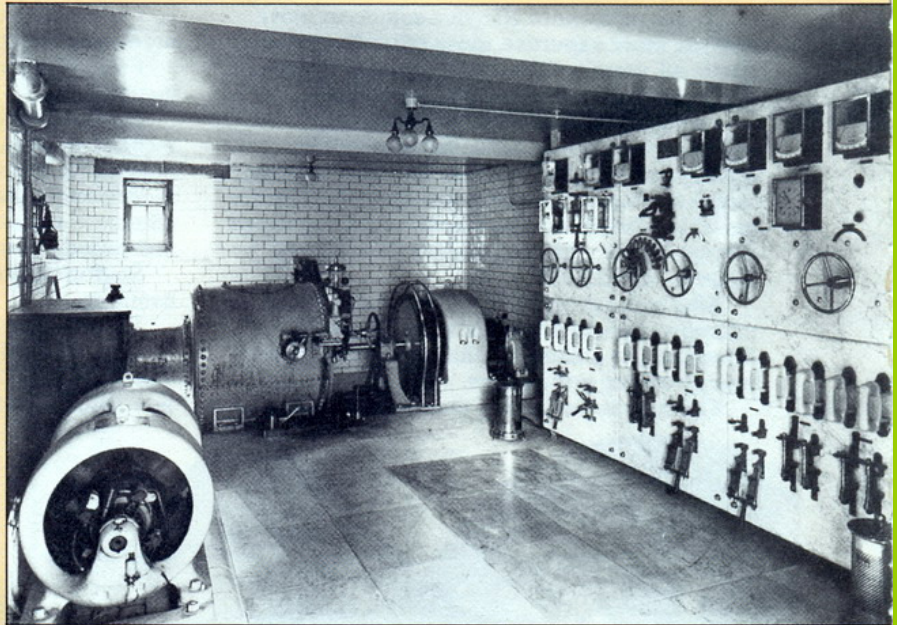
The introduction of basic building engineering services advanced rapidly during the 19th century and this is nowhere better illustrated than in the rise (and subsequent fall) of the large country houses of the Victorian period. Architect and writer Mark Girouard summed it up.

"They were enormous, complicated and highly articulated machines for a way of life which seems as remote as the stone age, served by a technology as elaborate as it is now obsolete. The houses have now become, too often, stranded monsters with abandoned gasworks, abandoned billiard tables, gigantic boilers and miles of pipes rusting in the basement, long rows of bells rusting in the back corridors, the butler's pantry, brushing rooms and laundries empty. . ."

Victorian country houses were complicated because they had to accommodate so many people. The largest often had 40 or more indoor staff. The new railways made it easy for friends and relatives to visit and to stay. They often brought their servants with them, so at its busiest a great house might contain 100 or even 150 people.

All of these people were organised into a strict pecking order and the house was strictly divided into reserved territories. Thus everyone knew their place in both senses of the word. Again, quoting Girouard: "The household was divided into family, guests and servants; the servants were divided into upper and lower servants; the family into children and grown-ups; the children into schoolroom and nursery. It was considered undesirable for children, servants and parents to see or hear each other except at certain recognised times and places."

This made many activities, such as meal-times, extremely complicated. Main meals were often served in as many as five different places: the dining room, the schoolroom, the nursery, the steward's



room (upper servants) and the servants' hall. Many houses also had a separate breakfast room.

The sexes were also divided: the mistress in her boudoir, the master in his study; the ladies in the drawing room, the gentlemen in the library and billiard room; the bachelors sleeping quarters separate from those of the unmarried ladies; the menservants separate from the maids. Optional extras "upstairs" might include a chapel, conservatory, ballroom, picture gallery or music room.

But it was "downstairs" in the domestic offices that the complications really began. There were nine recognised divisions: kitchen offices, upper servants' offices, lower servants' offices, laundry offices, bakery and brewery offices, cellars storage and outhouses, servants' private rooms, supplementaries and thoroughfares.

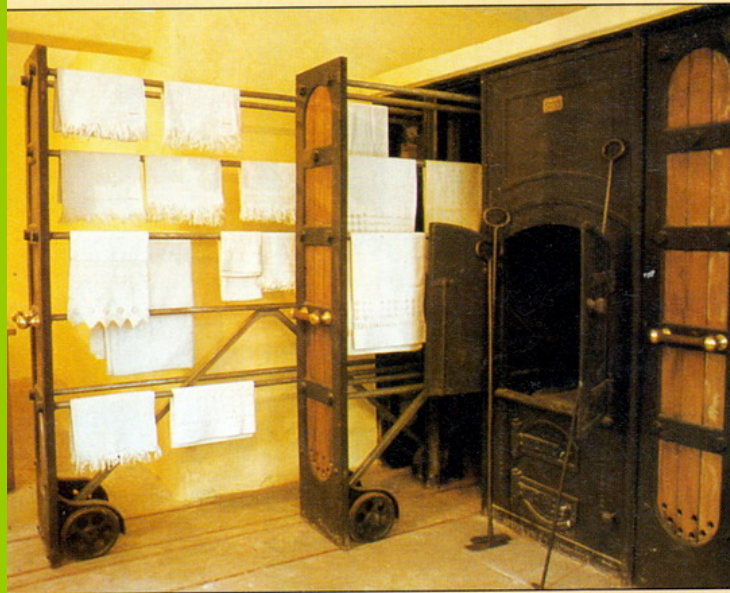
The upper servants, such as the housekeeper and butler, had the housekeeper's room and pantry respectively. Associated with these were the still room, store room and china closet; and the plate safe, plate scullery and bedroom. Lower servants' rooms might include brushing room, knife room, shoe room and lamp room. The laundry department would in-

clude wash house, drying room, mangling room, ironing room, folding room and laundry-maids' room (dirty clothes in at one end, clean clothes out at the other). Last, but not least, came the kitchen with its scullery, pantry, meat larder, game larder, fish larder, dairy and dairy scullery.

All of these rooms and activities had to be provided with the appropriate engineering services. They had to be heated and lit, and sometimes ventilated. There had to be water supply and storage, and sewage removal. There were the services and apparatus for the storage, preparation and cooking of food, for doing the washing-up and doing the laundry—to say nothing of the bells for summoning the servants. Often, these large houses were in remote locations and had to be virtually self-contained.

Plumbing and sanitation

Water closets were reasonably common; wash basins less so until the 1860s when "cloakrooms" were provided off the entrance hall and often adjacent to the billiard and smoking rooms. Until some 30 or so years later, baths were often considered a luxury. After all there were plenty of servants to fetch and carry jugs



Right: Servants at Manderston, Berwickshire.

Left: The drying room at Hill of Tarvit, Fife. Photographs: *The last country houses* by Clive Aslet. Yale Publications.



of hot and cold water to hand-filled basins and hip baths in the bedrooms. However, a few of the more luxurious houses had separate bedroom suites, each with its own bathroom.

Piped hot water was sometimes available from a central boiler or even from individual boilers in the bathroom. As Lord Hamilton recalled: "Switching on the hot tap produced a succession of sepulchral rumblings succeeded by the appearance of a small geyser of rust-coloured water, which stopped after a couple of minutes and was in any case stone cold."

Of course piped water, hot and cold, needed a water tank and a water tank needed a water tower; another chance for the Victorian architect to show off.

It was in late Georgian times that central heating was reintroduced. There were three competing systems: steam, hot air and hot water. The hall at Pakenham

Hall was heated by hot air in 1807. Sir Walter Scott had steam heating installed in the hall at Abbotsford in 1823, while hot water heating was installed at Stratfield Saye for the Duke of Wellington in 1833.

However, coal fires and chimney stacks remained common. Gas lighting caused its problems and many houses had ventilation shafts fitted to the rooms which "more frequently let cold air in than foul air out."

Gas lighting of Victorian country houses dates from around 1850. In many cases it involved building a gasworks and hiring a "gasman". Nevertheless candles, colza lamps and later the American kerosene lamp, continued to be used. The first English country house to be lit by electricity using Swan incandescent lamps was Cragside in Northumberland, owned by the inventor and industrialist Sir William Armstrong, a personal friend of Joseph Swan. Power for the lamps came from a water turbine.

A number of large country houses rapidly copied this example, including Lord Salisbury's house at Hatfield although, "his family threw cushions at the sockets when they sparked and the gardener was actually killed by it", possibly giving rise to the mock-heroic lines of Hilaire Belloc's poem on the benefits of electric light:

"Some random touch: a hand's imprudent slip, the terminals, a flash, a sound like "Zip!" A smell of burning fills the startled air, the electrician is no longer there!"

Perhaps the most notable of these early electric light installations was Chatsworth, with 850 incandescent lamps and the electricity produced by water power. Later, the turbine house at Ardkinglas in Argyllshire had a landscaped dam, a salmon ladder, and a dynamo room with marble-faced instrument panels.

Other services in the self respecting

country house ranged from the sublime to the ridiculous. Bells operated by pull wires, to call "downstairs", were improved by the introduction of, firstly, pneumatic bells and finally, around 1890, by electric bells. In many large houses, hand-operated lifts were installed for goods and luggage (not for people). From about 1850 onwards most lifts were hydraulically operated. Fire hydrants, connected to the water tower, were also tried, apparently not too successfully. Harfield had an internal telephone system around 1870. But the prize must go to Lord Grimthorpe who, in the mid 1870s, had wc doors that would not open until the wc had been flushed!

In 1901, the number of female indoor servants was recorded as 1 330 000, but to the people "upstairs" this was bad news, since it represented only an 8% rise over the preceding 20 years compared with a population explosion of 25%.

By 1909 the situation had worsened: "The old race of servants who laboured from 6 o'clock in the morning till 11 o'clock at night is now extinct; and the new order is exceedingly exacting on the question of hours and the volume of work." House owners looked to labour-saving devices to handle the crisis.

After 1900 most new country houses had electricity and by then many were fitted with internal telephones (few had outside lines before 1914). Some had an ice-room with, perhaps, a "Zero" ice-making machine. The laundry became mechanised with a washing machine, a mangle, a centrally-heated drying closet (where rails laden with clothes were pushed-in or pulled-out on runners), the new spin-drier or "hydro-extractor" and the improved electric iron.

Another labour-saving apparatus, patented in 1903, was the centralised vacuum cleaning system. Finally, after the First World War, came the new kitchen with its Aga, or gas or electric stove, followed by the forerunners of today's electrical appliances: grills, toasters, percolators and kettles. By 1938, the automatic dishwasher and waste disposal system had appeared, but with the onset of World War II, the "downstairs" as had existed in the heyday of the Victorian era virtually ceased to exist.

B M Roberts, FCIBSE MASHRAE MIP MASPE is technical director of H H Airpower and chairman of the CIBSE Heritage Group.

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