"The road is more an abstraction than a reality in nature. It is the trace made by man in the landscape, telling of him but not showing him."

Peter R. Bond has exhibited at many galleries, including:


The road is more an abstraction than a reality in nature. It is the trace made by man in the landscape, telling of him but not showing him.

Directions
The environment – a new form of expertise

Intersections
with Yves LeBouthillier

On a mountainside in Alaska
Starting points
The Board of Directors of Bouygues SA has launched a simplified exchange offer for Colas shares. What precisely does this entail?
The exchange offer will enable the Bouygues Group to integrate Colas in its consolidation, so our results will now become a major component of those of Bouygues SA.
In proposing this operation, Bouygues is acknowledging the outstanding success of Colas’ strategy and development and the spectacular improvement in its results. These successes stem from the top quality work of everyone in the Colas Group, both in France and on the international stage.

Will the operation make any difference to the organization of the Group?
No, there will be no change to our organization. Colas will press ahead with its development and growth, will retain its identity, its own working methods and its culture. We will go on making acquisitions on all five continents, and will still develop new road-related activities.
The interim results we have seen indicate that there will be a sharp rise in our revenues for the year. Overall trends on all the road building markets on which we operate are favorable. In metropolitan France, the rest of Europe and North America, our business is sustained by economic growth and a high level of both public and private investment. This improvement results from a higher volume of business and strong performance from all our subsidiaries, in spite of the higher cost of petroleum products.
But let’s not delude ourselves: we will achieve our objectives if the results of all our companies, branch offices and sectors remain good.

I am in no doubt that Colas will have a wonderful future.”

The construction and public works industry is undergoing vast change, with consolidation occurring at a quickening pace in a very healthy economic climate. Could there be a shift in strategy for Colas?
I don’t envisage any other strategy in the next few years. Colas must continue to expand – and expand more rapidly – in the road building sector. We still have a very big margin for further progress both in France and around the world. Already this year, we have made numerous acquisitions in France, other European countries, North America and Asia. It is by pursuing this development policy that we will remain the leader in our industry. I am in no doubt that Colas has a wonderful future ahead of it.
LATITUDE/LONGITUDE

From Benin to Hungary, from the US to the UK, snapshots of Colas expertise around the world

DIRECTIONS

Drivers
- Management, methods, markets…
  What’s changing at Colas around the world

Backward glance
- The greening of an open quarry in western France

In depth
- The environment – a new form of expertise which is now being adapted by each subsidiary to suit local conditions

ITINERARIES

Working behind the scenes or under the floodlights, these are the men and women who make the Colas Group what it is today

INTERSECTIONS

- Yves LeBouthillier, performance bond manager at Axa Global Risks
- Gilles Johanet: for a more open health-care system

Alaska

On a mountainside in Alaska
France
Synergy takes off at Strasbourg airport

Poland
Colsoft keeps things quiet in Poznan
From Benin to Hungary, from the US to the UK, visits to jobsites, snapshots of work in progress, reports on finished projects. Colas expertise around the world.

**United States**

**An Interstate widened to 6 lanes by Sloan**

A 17-kilometer stretch of Interstate 85, which crosses Georgia, South Carolina and North Carolina, is being widened from four to six lanes in two phases. The first 8.5 km stretch was delivered in September 2000, while the second part of the project will be completed in June 2001. Work is mostly carried out at night to minimize traffic disruption. The project involves more than 70,000 m³ of earthworks, and 330,000 metric tons of Superpave asphalt mix. The widening of the highway required the construction of a median concrete barrier wall and three pre-stressed concrete road bridges of 97, 95 and 75 meters. The shoulder was also rebuilt in view of possible widening to eight lanes at a later date.

**Colas brings Burkina Faso a little closer to Benin**

Work on a highly strategic road between Savalou and Djougou, part of the route connecting Benin with Burkina Faso, got under way in March 2000 and will take two years to complete. The road will improve access to the port of Cotonou for several neighboring countries. The 226-km long project has been split into two sections, one of which, 126 km long, has been contracted to Colas. Over 400 people and 170 machines will be working flat out through this 24-month long project. When you are 500 km from Cotonou and in a climate that can be inhospitable (two rainy seasons are inked into the site schedule), the most complicated issues concern logistics. From the earthworks to the final surfacing, the job will require transportation of almost 1,000,000 m³ of materials. Around one hundred structures will be built below the road surface, while 100,000 metric tons of aggregates will be crushed before some 1,300,000 m² of surface dressing are laid.
A two-phase project to reconfigure Route 5, a major highway in New York State, has called for a particularly tight work schedule. Launched on July 3, the high-speed job is under way in New Hartford, New York, with the first phase already completed on September 21 and the second due for completion on November 20, 2000.

The challenge facing Barrett Paving Materials, Inc. is to reconfigure and pave a stretch of Route 5 and various surrounding roads in 140 calendar days. The site is in an urban setting, and traffic of 4,500 vehicles per day must be maintained throughout the project. According to the conditions of the contract, every day of overrun on each phase of the schedule will cost $10,000 in penalties. However, the work teams are motivated by the fact they will receive a bonus of the same amount for each day gained on the schedule. More than 30 people are working on the project, along with nine subcontractors, making coordination a major issue.

The job is running to schedule, in spite of heavy rain that has hampered progress. The site involves 49,500 m³ of excavation, 2,100 m of pipe works, and 45,000 metric tons of asphalt mix. And alongside the target of zero delay is that of zero accidents.
Contractors who build automobile manufacturers’ test tracks face the challenge of recreating a road landscape that condenses diversified real-world conditions within a limited area. Somaro Ile-de-France/Nord-Picardie agreed to take on the assignment of completing the new extension to Renault test facilities at its Aubevoye Technical Center in Normandy. The site broke nearly all speed records – commenced on November 1999 and handed over on January 15, 2000 – and required a high degree of surveillance. The Renault proving ground is kept top secret, which meant that Somaro had to exercise extreme care in the management of access authorizations.

The site comprised a total of 21,000 linear meters of guard-rails, 9,000 meters of which were bends fitted with bolt safety clamps and four 110 kph shock-absorbers, 1,000 meters of glare-reducing screens, single-lane concrete separators, barriers and service roads. The Ile-de-France/Nord-Picardie agency was in charge of coordinating the five teams who came from Lens, Melun and Paris, plus reinforcements who were drafted in during the site in the form of a team from the Centre-Ouest Atlantique agency. The contract amounted to nearly €1 million of top-range safety equipment.
Optical fiber cables cross Paris
To provide high-speed capability Internet connections, optical fiber cables are now linking up many French cities. Crossing the Paris area, they stretch from Nanterre in the west to Vanves in the south of the city, a distance of 17 km. This is the largest site of its type ever carried out in an urban area. Twenty-four 33/44 sheaths containing the cables were laid at a depth of 1.30 m in a 50-cm wide trench dug along the embankment freeway that lines the river Seine. The various problems of access, safety and marking that the site involved only made it possible for the team of one hundred people to work between 10 am and 4.30 pm, out of rush-hour traffic. All the Suburbaine Ile-de-France agencies worked on the site, as well as Pergaz and SNTP, two Spac subsidiaries. Good synergy between the teams meant that work was completed in just three months.

Romania
Colas turns to the east
Following the RN 2 highway refurbishment project in Romania, three new contracts have been signed. They were for work on three separate stretches of the Bucarest-Moldavia road link, and involved a total length of 150 km, representing about one million metric tons of asphalt mix. The contract set the period for hand-over at thirty-six months, but it was possible to complete the first, 50-kilometer long stretch, in under twenty-four months. The second project, Buzau to Rimnicu Sarat, was of the same length, and was recently completed, six months ahead of schedule. On the site were a TRF 21 asphalt mixing plant, an application workshop, a fleet of 14 semitrailers and almost 500 people who were all intent on completing the large-scale construction job. The feat worked in favor of the Romanian agency in its bid for the final stretch, which is scheduled for completion at the end of 2001. To achieve these results, Colas teams and those of its partner worked in relays from 4 am to 11 pm every day for the entire duration of the project.
Néophalte Pont – a bridge so fast!
On the A89, in the Corrèze department of southwest France, Smac Ouest-Sud-Ouest has completed the waterproofing of the deck on a road bridge using Néophalte Pont, a special-quality mastic asphalt applied at low temperature.
This comprehensive and reliable waterproofing system makes a perfect bond between the concrete deck and asphalt road surface that constitutes a major advance on traditional waterproofing techniques. Its application on all types of structure delivers very high productivity rates – on the A89, 2,000 sq.m. were applied in just two days. And to complete the list of benefits, Néophalte Pont has acquired a technical approval from CETRA.

East meets west
The new road link between Geneva on the French-Swiss barrier and La Rochelle on the Atlantic coast is growing kilometer by kilometer. Colas is the main contractor for a 16-km section of roadway linking Chalon-sur-Saône, Paray-le-Monial and Digoin. The work will be performed in several stages. First comes the construction of a four-lane 6-km stretch, then the upgrading of the RN 70 over 5 km, and finally the construction of a northern by-pass of the town of Paray over another 5 km. The site requires some 200,000 metric tons of as-dug gravel and 300,000 metric tons of asphalt mix. The necessary materials have been shipped mainly by rail. The site required the installation of two hot-mix asphalt plants. Large-dimension graders and finishers are three-dimensionally GPS-guided: information transmitted to the machines by computer gives altitudinal accuracy of within 5 mm for both the gravel and the asphalt. The project is being performed by Colas Est and Colas Rhône-Alpes. Saba, a Somaro subsidiary, will carry out the structural work in extruded concrete and BRS will perform the finishing of the structural piers. Work began on January 15 and is scheduled to finish at the end of October.
Located in the heart of Melanesia, Vanuatu, an archipelago of more than eighty islands, used to be known as the New Hebrides. Aviation is the principal means of transport, for both domestic and international journeys. Two airports that were constructed during the Second World War required refurbishment and upgrading to international standards to permit the operation of large aircraft such as the Boeing 737 and the 767.

After an international invitation to tender, the design-build contract for Bauerfield and Pekoa airports was awarded to a grouping of Colas and Sofreavia. Work started on March 1, 2000 and is scheduled to last 11 months. It comprises refurbishment and extension of the runways, installation of rainwater run-off drainage structures, construction of access roads, excavation work and application of asphalt mix. All these operations are being carried out directly by the grouping or subcontracted to local companies. The project involves logistical problems that have been difficult to resolve rather than technical construction difficulties. Plant and material are imported from New Caledonia, the island being only some 700 km distant. A total of 18 rotations of barges were required to load, transport and unload a total of 43,000 metric tons of aggregates. A tug even lost its barge in very heavy seas, which was fortunately empty at the time.
In association with Spac, GTR (Grands Travaux Routiers) has laid a 30-inch steel pipeline between the port oil terminal and the Samir oil refinery, a distance of 3 kilometers, on behalf of the Moroccan Ports Authority at Mohammedia. A team was seconded by the Port-de-Bouc Suburbaine agency and labor was recruited locally for this special jobsite.

The pipeline traverses some extremely varied terrain – sand dunes, flood plains, rocks and roads. It also crosses a village, runs alongside a wadi and carries on along an embankment before ending in the sluice chamber of the country’s only oil refinery. The diversity of terrain encountered when excavation began meant that pipe layers could not be used. Assembly and welds had to be carried out in the trench. The figures show the scale of the project: 7,500 cubic meters of excavations, 3,000 meters of 30-inch steel pipeworks, 300 cubic meters of reinforced concrete and 1,600 cubic meters of gabion cells. Work on the site, which began on February 15 and terminated on July 15, progressed well thanks to a high level of synergy between the two subsidiaries.
**Limoges ready for take-off**

Over a five-week period this summer, Limoges-Bellegarde international airport had its 100,000 sq.m of runway entirely renovated thanks to the Novacol process, a cold in-place recycling technique. The principle consists of planing the surface on-site, incorporating an additive to the reclaimed material and applying the result as a base course to be covered with a surfacing layer of asphaltic overlay. Teams from Colas Sud-Ouest and Screg Sud-Ouest carried out this high-quality renovation. The operation, worth over €3 million, means that except for the very largest airplanes, all types of aircraft can now land at Limoges-Bellegarde.

---

**Every little helps**

Last May, the Hungarian pipeworks subsidiary, Alterra, brought a BG 22 drilling unit of a revolutionary new design into service. The 24-meter long telescopic system is capable of sinking 400 mm, 600 mm or 800 mm drills, down to a depth of 15.4 meters. The first site using the equipment was completed in the space of two weeks for the new Tesco supermarket complex at Sporon. The project involved drilling for the injection of 408 40-cm diameter piers to depths of between six and nine meters. Alterra is an innovator on the pipeworks market with a second technical novelty – the micro tunnel-boring machine. With a computer-guided drill head that is interchangeable depending on soil type, the system can be used to lay pipes from 300 mm to 1,200 mm, no matter what type of material is encountered and with no interruption of surface traffic. A team of four people is sufficient to lay a section several hundred meters long, from a single access shaft. This is an environmentally-friendly technology which generates no dust, noise or vibrations.
AUSTRIA

Coletanche in the works

Built between 1940 and 1950, a large number of Austrian electric power plants have seen the waterproofing of their concrete structures badly worn down with time. This has necessitated re-waterproofing a number of their canals so as to finally stop the continuous loss of water and, subsequently, the drop in the amount of energy produced. As a result, the Dionysen-Bruck an der Mur canal near Graz, south of Vienna, has been refurbished with 100,000 square meters of Coletanche waterproof geotextile membrane. Once the canal has been replenished with water, electricity production should rapidly rise to its highest level.

We came, we saw, we Colsofted!

In 1999, legislation intended to reduce noise pollution was introduced in Britain, and transport was widely targeted, road infrastructures in particular. Colsoft had already made a noticeable impact in the United Kingdom on its introduction in 1998, when a demonstration of its noise-reducing qualities was given on July 1 of that year during National Noise Awareness Day. Benefiting from the publicity the national newspapers gave to the occasion, the product, manufactured with recycled used tires, has already earned a “green” reputation. At the end of 1999, a one-kilometer stretch of the A244, a major highway, was laid near Hersham, west of London in the county of Surrey. In the wake of the publication of a local government report that was particularly favorable to Colsoft, a new contract was signed last September in Battle, Sussex, for a 4,200 square meter site.
On the site of its new European assembly plant, installed at Onnaing in the Nord Department of France, the Japanese automobile manufacturer Toyota has constructed a new test track. The facility consists of a 3,300-meter long speed ring and ten secondary zones comprising four-meter wide tracks that are between 100 meters and 200 meters in length, intended to subject vehicles to many different types of test. Toyota awarded the contract to Colas Nord-Picardie. Bernard Janvier, operations manager, and Jean-Luc Antheayme, site manager, are in charge of the complex project.

To obtain a speed ring with a perfectly finished surface, each of the three asphalt mix layers was put through the profilometer and fine grading was performed on two layers to obtain a more even result. The characteristics of each secondary zone are designed to recreate terrain of a different type or to test the specific technical capacities of vehicles. There is a zone that simulates a gravel road in poor conditions, while another is made up of slanting, disjointed concrete slabs, a third is cobble-stoned and is bumpy. A zone with cables, a slalom track and an 18% slope complete the set of test tracks. Also installed is a noise-measurement track fitted with micro sensors and another track for braking tests. Each one required a separate design and execution study.

Worth a total of €3.8 million, the Onnaing site was completed in record time, more than six weeks ahead of the planned schedule.
Ketchikan was in urgent need of a bypass road to ease downtown traffic jams. The new road runs along the mountain, at the foot of a residential neighborhood. The terrain is steep, the local community must be protected from nuisances and the weather is often bad. Secon teams have risen to the challenge.
The mountainside drops down a steep slope to the sea, where the town of Ketchikan lies at the ocean’s edge. Since the month of May, tons of rock have been blasted for the mountainside road. Some houses are only thirty meters away. “The blasting was the most sensitive part of the work – the part that will stay in my memory,” says site manager Ian Black.

Located some 500 kilometers south of state capital Juneau, this small town, whose name means “wingspan of an eagle”, has 8,000 inhabitants, 30% of whom are Native Americans. In the last three years, 20% of the population has left following the closure of a paper mill, and unemployment has risen to between 6% and 7%. Ketchikan is cut off from the rest of the world and can only be reached by boat or airplane. There is a local road network, but it is only some sixty kilometers long, winding in and out along the coast.

WAITING FOR THE BYPASS

A ship arriving in sight of the port is always an event in Ketchikan. The flurry of activity that the ships generate is focused on the town center, where all the shops and businesses are located. Congestion quickly sets in as a result of the increase in local traffic.

To drain off traffic and allow local residents to get across town more easily, the city council decided to build a two-kilometer bypass on the side of the mountain to avoid the downtown area. Secon Inc., the Colas subsidiary in Alaska, was awarded the contract, worth $12 million.

The Secon team prepared to mobilize for the site far in advance. All the equipment had to come by barge to Ketchikan, including six trucks, four hydraulic excavators and support equipment. “All the construction materials had to be ordered eight to ten weeks before the project began, but the aggregates came from a local quarry,” recalls Black. “The aggregates came from a local quarry, though.”

The team comprised fifteen people, including Ian Black, project manager, superintendent Ole Olson, project engineer Ken Kirschenman and foreman John Logsdon. “Ole and I have worked together on Secon projects for four years now,” notes Ian Black. “John also joined Secon ten years ago, but he worked on other sites. Ken, who was hired specifically for this project, lives in Ketchikan, like most of the other Secon workers, which facilitated our relations with the local residents and helped us become part of the community.”
Every state has a small, thick “book of Standard Specifications”. The Alaska specification book is known as the Blue book. It contains all of the state regulations concerning construction sites. It stipulates working methods and the ways to go about them, along with standards for materials, environmental protection, safety, etc. The Blue book is a collection of rules that must be strictly adhered to by the teams on the sites. When they are faced with situations or problems for which no rules or guidelines have been stipulated, they must submit a report to the State Engineer for approval. This practice also makes for fairer and more open competition as it ensures that all construction companies apply the same rules and regulations.

The bypass runs for two kilometers on the side of the mountain to avoid the downtown area.
Alaska takes great care to protect its environment, particularly since the *Exxon Valdez* oil spill ruined parts of its coast. This is a state whose income is primarily derived from its natural resources, which includes forestry operations. The tree-trunks used for the palisades will be sold at the end of the project and the other trees that were cut down will be burned on site.

Environmentally-friendly practices are **STRICTLY REGULATED**. The United States has laws and regulations governing hiring and subcontracting on construction sites. Among other things, 8% of jobs must be reserved for women, and part of the work must be subcontracted to what are known as Disadvantaged Business Enterprises. These are companies whose owners and managers come from socially and economically disadvantaged groups, such as Native Americans, Black Americans or Hispanic Americans.

In addition to complying with strict American legislation, the site managers had to take account of the specificities of the construction site topography and the existence of dwellings in the immediate neighborhood. “The site was very narrow, because both ends of the road are located in the town and the middle stretch is carved into the side of the hill, above the town, with a retaining wall above the homes,” explains Ian Black. “Most of the site was restricted to a single lane.”

From this it is clear that the most difficult part of the site work was blasting the rock and taking maximum precaution. In all, there was a total of over 115,000 cubic meters of rock to drill, blast, load on to trucks and then transport. “These operations were performed by Secon,” notes Ian Black, “and Ken Kirschman helped enormously with his special knowledge of drilling and blasting.”

**A CLOSELY-WATCHED ENVIRONMENT**

To protect the houses located nearest to the site, the team erected temporary rock barrier fences. These four-meter high wooden ramparts are reminiscent of the old forts of the American West. They hold back the rocks that fall down the hillside after each blast, and despite their apparently fragile appearance, can resist an impact of 120 foot-tons.

The wood used for the palisades came from the clearing operation. Chopping down trees is strictly controlled and must comply with a plan approved by the State engineer, who also supervises the entire process of the site. Without his approval of the procedures used, no work may be undertaken.
also used to deal with the blasted rock and waste excavation. All of the rock excavation will be used as back-fill for the new road, and the waste excavation will go to a landfill that belongs to an adjacent landowner.

**A COLD WEATHER ROAD STRUCTURE**

The roadway structure is typical for Alaska. Non-frost susceptible material is required under the roadway to prevent frost heaving during the winter months, and permanent damage to the roadway structure. Under the roadway, a 1,600 meter-long waterline transports water to the different parts of the city. This waterline is buried deep enough so that it will not be damaged or frozen during the winter months. There are numerous drainpipes which are placed throughout the project to handle the storm and rainwater runoff.
The construction is scheduled to last eighteen months until September 2001, but work will be halted for three months during the worst of the winter weather, which is from December 2000 to February 2001. Winters are “less than glorious”, says Black: “most of the time it pours rain mixed with snow. Temperatures vary between -5° C and +5° C and the wind reaches speeds of up to 100 kph. There is between 4 and 5 meters of annual rainfall. Life in Ketchikan is hard.”

On the site, work starts at seven o’clock in the morning and finishes at around five-thirty. For Ian Black and Ole Olson, the day does not end there, but carries on long enough to go over the day’s work and sort out any problems. Black has moved into the Secon offices in Ketchikan, Olson and John Logsdon live in mobile homes on the site, something that frequently happens in these parts. Life goes on as usual, until the next project.

A total of 80,000 metric tons of borrow is required, including 6,300 metric tons of asphalt mix and 30,000 metric tons of subbase and crushed base aggregate. At Ketchikan, Secon has set up its own stationary asphalt mixing plant that will be supplying the site. A stationary plant is a novelty in the southeastern part of Alaska, where mobile plants that can move from site to site are more customary because of the large-scale distances involved.
Ian Black was born in Alaska, at Haines, north of Juneau. At college, he studied math and went on to an MBA, not the most logical qualification for heavy site work, but he nonetheless feels that his studies have helped him a lot in his chosen profession. After graduation, he worked in a variety of jobs before deciding to set up his own public works company. “I had my own equipment,” he recalls, “and I was about to buy some more when I was contacted by Secon. Four days later, I was working for them.”

Now age 34, Ian Black has been working for the Colas subsidiary in Alaska for four years. He says: “I love my job because it is so varied. Each site is different. The difficulties are never the same. So we have to adapt and find solutions to problems as they come along.” However, one thing he does regret is the fact that his work keeps him and his wife apart for long periods of time, but as he says, “That’s the job!” And when he does take some time off, he goes hunting, fishing and parachute jumping.
Synergy takes off at Strasbourg airport

Rebuilding the Strasbourg-Entzheim international airport runway in record time required the mobilization of major resources to keep the impact of site work on the airport’s heavy air traffic to a minimum.

On the Strasbourg runway, three motorways in width, the ballet of heavy machines is in full swing. Graders, finishers, sprayers and compactors rumble around non-stop. A total of 80 machines have been mobilized and 400 people are on site. Exceptional means have been deployed to deal with an exceptional job-site. The contract calls for the reconstruction of the Strasbourg-Entzheim runway, 30 meters wide and 2,400 meters long, in record time, and in phases that are designed to keep the impact on air traffic to a minimum. To respond to a project on such a scale, seven companies (Screg Est, Colas Est, Eurovia, Transroute, Strasal, Santerne and Isotech) grouped together to pool all their resources.

NO ROOM FOR ERROR

The first phase, involving laying of drainage and installing traffic control equipment, was carried out at night, under traffic, from April 10 to June 30. The second phase, which required closure of the airport, was performed over the period July 17 to 25.
August 25. Air traffic was completely interrupted for a period of forty days to carry out the demolition, excavation, pavement, signs and road markings. "We had no room for error. On August 26 the planes had to be back rolling down the runway," explains site executive Alain Desvaux.

Originally constructed in 1952 for the French Air Force, using the Compomac process, the upper part of the runway had severely deteriorated. Cracks had appeared causing seepage of water under the road surface. Reconstruction had become an urgent priority to support traffic that has become more dense and increasingly heavy aircraft.

**Organization on a Knife-Edge**

Work was organized in six-day weeks. This allowed a safety margin so that in the event of unforeseen delays, it would be possible to work Sundays to make up for lost time. Penalty clauses ran to around €150,000 daily, and to keep to this very tight timetable, a firm schedule and logistics plan were drawn up. "During phase 1, the site would start up at 11.30 pm, as soon as the last plane had landed," explains Philippe Fauré, one of the worksite supervisors. "We had until six o'clock in the morning, apart from an interruption to allow the mail plane to land, the only exception that we allowed." During phase 2, the teams worked in two shifts, from 5 am to 10 pm, six days a week. "A very detailed overall schedule was established on an hour-by-hour basis for each station and each piece of equipment. We got together three times a day to debrief," recalls Desvaux.

To avoid breaks and delays in the supplies of materials, all deliveries took place during phase 1. Any risks that might occur, such as a fuel supply shortage, were thought about in advance. "We used four suppliers at the same time to avoid any supply..."
Since February, Sylvie Walter has hardly stopped to draw a breath! A graduate of the Lyon INSA business school, she is in charge of external inspection and has been hard at work since the drafting phase of the execution procedures and quality assurance plan. At the end of August, when the airplanes rolled down the runway again, she breathed a sigh of relief. After all, she had been on the site six days a week. “My job is to control proper execution of the work and verify that what has been carried out conforms to the contract” she explains. She also suggests solutions if any problems arise. She entered Sreg in 1992 as a construction executive and worked her way up from there. Clearly this energetic young woman can keep up the pace. “In the beginning I inspected from 3 am until 4 pm,” she says proudly. And what makes Sylvie run? Her enthusiasm, which in common with the rest of the site personnel, is constantly high.

Because of a very tight schedule, supplies of materials were brought in during the first phase to avoid any delays or unexpected shortages.
chain failures,” adds Desvaux. If one of the two asphalt mixing plants on the site had broken down, there were three back-up plants standing by to take over. The occasional unexpected incidents that did occur was rapidly dealt with. “As soon as the project started, we saw that in certain places the concrete slabs were welded to the grave cement layer. We were totally unable to break them out. We got really worried!” admits Philippe Fauré. But by mobilizing all possible resources, the right sort of hydraulic concrete jackhammers were procured and the slab demolished.

**REUSED MATERIALS**
An original aspect of the project was the fact that closed-loop recycling of the material recovered from the demolition of the old runway took place on-site. The material was reused to raise the height of the embankments so as to better protect neighboring areas from noise and was also used in the manufacture of some of the structural sub-grade. “Thanks to this, we avoided having to remove 280,000 metric tons of rubble and were able to reduce the quantity of aggregates we required by something in the order of 200,000 metric tons,” points out Olivier Descroix, head of the temporary “Runway” unit at the county Planning department. “Thanks to this method, we were able to avoid an extra 20,000 truck movements.” The overall aim was to reduce nuisance for the surrounding inhabitants to a minimum.

Next year, the heavy plant will return to the scene to complete the final phase of the contract – refurbishment of the taxiways.
The beginning was an epic struggle! But Bruno Méric, site manager in charge of the Roadway phase for Colas Est, soon got used to the mad frenzy that overtakes this extraordinary site between 5 am and 10 pm. At 35, Bruno no longer panics when a team gets behind and may throw out the entire schedule. “We are constantly on a knife-edge. Because of the overlapping teams, the slightest delay has an immediate knock-on effect. We have to update the schedule twice daily,” he says with a smile.

Everything had to be prepared in enormous detail in order to find plant free on the dates required and organize its utilization. “The plant is for collective use, from roadway to excavation. During the preparation phase we had to predict all the movements, which required complete communication between the five road building companies in the grouping. But with all the shared plant that was in use, it really was one single project!”
Colsoft keeps things quiet in Poznan

A noisy town center and local residents complaining of disturbance... Strada’s solution is Colsoft, the noise-reducing road surface material that is opening up new horizons to local authorities.
In 1999, Strada, the Colas subsidiary in Poland, suggested to the Poznan city council that a test strip of Colsoft be laid in Grunwaldzka, the main street in the city center. Noise measurements carried out this year showed a reduction of five decibels compared to the old asphalt wearing course.

In view of the enthusiasm of local residents for the new road surface, which delivers a substantial reduction in noise, local authorities have decided to pursue a program of city street modernization. The city of Poznan also awarded Strada a contract to resurface Hetmanska Street with Colsoft.

A POPULAR PROJECT

The new site, located on the main road that links the built-up suburban area with Poznan city center, is 611 meters long, over two lanes separated by a tramway.

A constant stream of heavy-truck traffic added to the noise of the tram was making the life of the residents unbearable. “As soon as we arrived on site,” explained Mariusz Kaszmarek, Strada site supervisor, “the inhabitants welcomed us with open arms. We could see for ourselves that the combination of noise from both the trucks and the tram actually made the furniture in the houses shake!”

Strada was contracted to perform all phases of the work on this street, which is subject to great variations in temperature. After removing the existing road surface, the program called for the complete refurbishment of the gutters and sidewalks. On top of the 5-centimeter thick binder course, a 3-centimeter layer of Colsoft was applied.

GUARANTEED COMPLETION DATES

Some thirty, strongly motivated site workers participated on the site, twelve of whom came from the Paledzie subsidiary. Work officially got under way on July 10, but dreadful weather conditions in Poland interrupted the project during the first two weeks. However, everyone concerned showed remarkable determination and successfully made up the lost time.
When Adam Torbiarczyk was a child attending the primary school located on Hetmanska Street, little did he think that twenty years later he would be heading a construction team working on a project for the same street.

But Adam has an unusual career path. A native of Poznan, Adam replied to a small ad placed by Strada in the Gazeta Wyborcza newspaper in March 1999 and was hired. At the age of 23, having completed secondary school and technical studies, he decided he was interested in the construction industry and wanted to learn one of the construction trades. “What I like is action,” says Adam. “I wouldn’t want to work in an office for anything in the world.” He nonetheless spends two week-ends a month studying sociology. “I like being back in the classroom,” he says, “it gives me an opportunity to learn, to understand a number of things that we don’t get to hear about on road building jobs. I need two schools – the job-site and the classroom.”

However, he has absolutely no intention of leaving “the road”. It is here that he spends most of his time alongside the workers he is in charge of. “I listen to them and I like being with them,” he says. “When we go outside of Poznan on long jobs, I take charge of the living side and see that they are comfortable. There is a big difference in our ages, but we have a very strong friendship.”

Adam Torbiarczyk is one of a team of eight site foreman working on the Strada site. In his supervisory capacity he also works on the execution of many contracts throughout Poland. He was delighted to be posted to one of the largest projects in the country, at Szczecin, 250 kilometers from Poznan, where he took part in the construction of a platform for a Carrefour hypermarket that lasted six months. When Adam’s two activities leave him any time for leisure, he likes to go biking with his friends on long rides along the coast.

After the city of Poznan saw the highly professional approach of Strada, at the end of July it decided to place an order for the refurbishment of an extra 350 meters of roadway, bringing the total length of the site to almost one kilometer. Strada committed to delivering this last stretch within the scheduled time-frame, which meant completing by August 21.

To congratulate the personnel for their dedication and responsiveness on all its sites, Strada organizes an annual party. On this occasion, a golden shovel is awarded to the “best” worker in the subsidiary. There’s little doubt that this year the lucky recipient will be one of the workers on the Poznan Colsoft project!
The Rencontres Colas take place every five years. They provide the men and women of the Group with a chance to get to know each other and discuss their professions and technologies.

A meeting turned towards the future

“Let us take the time to re-explore the Group’s history, life and values. These values must be embraced, so they will continue to pave the way to the roads of the future,” declared Alain Dupont in his opening address of “Rencontres 2000”.

The meeting was held early in March 2000 at the Paris Palais des Congrès convention center. For the 1,330 employees who had traveled from all the Group’s French and international subsidiaries worldwide, the eagerly-awaited event was the occasion to get to know the Group better.

To encourage contact between Group staff members, days were divided between plenary sessions and the “Agora”. Each plenary session was dedicated to a different topic. Participants were able to discover, or, in some cases, rediscover, the Colas Group’s past, principally through an excellent account of the Group history, and to understand what constitutes the Group’s reality and basic values today. They were asked to give some thought to what the future will hold for the Group, especially in terms of technical and technological innovations and the way in which they will be marketed in the years ahead. Presentations combining documentary sequences and first-person testimony gave participants a vibrant, dynamic vision of Group reality. They were also invited to visit the “Agora”, a space organized around eight “roads” – innovations and research, materials, plant, new technologies, etc. Regular “Miniforums” were held, during which a specialist would come and present a specific subject, such as asphalt mixing plants in the United States, soil decontamination or a specific project.

A highly popular presentation was given by Aimé Jacquet, trainer of France’s World Cup-winning Soccer team. He galvanized the “Colas team trainers” into action with a rousing speech on qualities common to both trainers of champion sports teams and contractors working in the field. The curtain came down on the “Rencontres” after a gala performance at the Paris Opera, to the delight of all those who attended. The next “Rencontres Colas” will take place in February 2005.
TESTIMONY

Thierry Defrène, South Africa
“For me, the ‘Rencontres’ were an opportunity to meet people from different backgrounds and to strengthen my network within the Group. It was also a chance to put faces to a number of names or to meet up again with people I had worked with during previous postings. The scale of this event impressed the South African team that came with me to Paris, who had recently entered the Colas Group. The ‘Rencontres’ eased their integration into the Group, and consequently, my own integration into their team. I learned a lot during these days. The ‘Rencontres’ also provided me with a brand new experience – it was the first time in my life I had ever been to an opera!”

Patrick Rivaud, Mauritius
“These ‘Rencontres 2000’ days were a highly valuable experience for me, particularly as I only joined the Group in 1998. They gave me greater insight into the corporate culture that everyone should be familiar with from the outset, but also it gave me the opportunity to exchange information, to network and to form new contacts. I was able to grasp the overall way in which the Group functions, get to know our employees and their various professions and discover, for example, an activity like research and development, which I did not know at all before. All the interest for a young engineer like myself is to have one’s outlook turned to the future.”

Yann Lemire, France
“Following the ‘Rencontres’, the feeling of belonging to the Group was much stronger than it was before. For me, the days were an opportunity to meet people from other centers, and to discover the aims of the Group as well as the new techniques and technologies we will have in coming years. It is important for everyone to get to know these so that we can sell them better to our customers. What’s more, when the event was over, I called up the cold-mix asphalt specialists that I met during a forum and we were able to work together.”
Safety improvement in France

Improved results
The safety record continues to improve throughout the Group, both in France and internationally. In 1999, the number of profit centers employing over 10 people not recording a single workplace accident with sick leave rose to 133, confirming last year’s already good result of 86. This impressive improvement strongly reflects the impact made by the initiatives that have been taken, the greater know-how of people and the correct choices made for the efforts committed.

French Safety Trophy
In France, 11 agencies or profit centers shared the four Group safety trophies in the following categories: 6 winners in category 1 (under 60,000 hours worked), 1 winner in category 2 (between 60,001 and 100,000 hours worked), 2 winners in category 3 (between 100,001 and 160,000 hours worked), 2 winners in category 4 (between over 160,000 hours worked). Among the 1999 award winners were the Boulogne-sur-Mer and Châtel-laurault centers, which have both won their 6th consecutive award, and the Carrières Neveux and the Albertville center, which have both won their 3rd. Large agencies have also shown well, with the Paris Hauts-de-Seine Screg agency and Sacer in Clermont-Ferrand winning in the 4th category.

A Group HSE (Health, Safety and Environment) manual
This book is a compilation of the safety, accident prevention, health and workplace environment function in the Group. The manual is intended to:
- Summarize the principles of the Group’s HSE policy;
- Compile a brief of the legislation and regulatory standards to which our industry is subject;
- Help our managers and supervisors manage the safety and accident prevention functions of their businesses.

The preparation of the handbook required two years of work by Group specialists from the areas concerned (Sites, Plant, Research and Development, Legal, Human Resources). Published in 1700 copies for each French-speaking establishment in Europe, it will soon be available on the Intranet. There is also a project for an English-language version.
Sloan wins the 1999 international HSE Challenge

The Group’s subsidiary Sloan Construction of South Carolina, with no workplace accident recorded for the entire year, was awarded the 1999 international HSE Challenge. The trophy, a crystal woodpecker, was handed over at Greenville on April 25, 2000. Following the success of Terus, one of the Group’s Canadian subsidiaries, this is the second time in a row that a North American company has been declared the winner. This year, Sloan has also collected the safety award of the South Carolina chamber of commerce, as well as a national award from the Association of General Contractors for having totaled a million hours worked in 1999 with no accidents.

50 years with no accidents at Barrett

The safety of the crews is a major objective for Barrett Paving Materials. All efforts are concentrated on raising team awareness of safety issues. The causes of accidents are studied in order to improve methods of prevention. The aim is to anticipate the unexpected, find solutions quickly and, above all, achieve zero workplace accidents with sick leave. The results are conclusive: on November 22, 1999, Bangor Maine Liquid Asphalt Terminal, a subsidiary of Barrett, celebrated 50 consecutive years of operation with no workplace accident requiring sick leave. The workers pictured above, both retired and active, total 133 years of experience and safety at Barrett.

Somaro wins award

Somaro has won an award for its 1999 safety standards results. The Colas Road Safety challenge award was presented to Chief Executive Jean-Marie Jolivet on June 26, 2000 by Yves Bonduelle, under-secretary for inter-ministerial coordination of action for road safety in France, in the presence of Xavier Lepercq. Somaro was first in the overall ranking and is also first in the following index categories: insurance claims, insurance claims with liability and average cost of claims. They had a claims frequency of 0.15, which is equivalent to 15 claims per 100 vehicles. These satisfactory results should encourage the Group to step up its efforts in this area.
The winners of the second international Innovation competition were awarded their prizes on May 17 during the Equipment Convention. The competition is intended to encourage the circulation of pertinent ideas within the whole of the Colas Group with the aim of improving tasks and the working environment. The six categories of prizes, organized into sixteen fields\(^{(1)}\) and eight topics\(^{(2)}\), are awarded to the most creative Colas employees. For the 2000 session, 330 projects were submitted, of which one hundred came from the United States, and 107 innovations were shortlisted by the selection committee for inclusion in the Innovation catalog. Thirty-three projects were finally presented to the jury who designated the winners.

The jury, under the chairmanship of Alain Dupont, was made up of fourteen members – three specialists from outside the Group, six employees from the French subsidiaries and a further four from international subsidiaries (Canada, Morocco, Ireland and Hungary). The second session to be held since its founding in 1995, the Innovation competition will now be scheduled every two years. So start innovating now for 2002!

\(^{(1)}\) Road works, drainage and pipe works, transport equipment, hot mix plants, office work, etc.

\(^{(2)}\) Manual skill, facilitating tasks, organizing work, work environment, transfer of know-how, stand-by equipment, materials, information.

This also means a drop in demand amounting to 60,000 barrels of oil and a production saving of 350,000 metric tons of asphalt mix. This operation was the brainchild of Sintra Inc during a successful renovation project they performed at Drummondville, Quebec in 1998.

The innovative idea was rewarded by an Environment Phoenix in the “Technological Innovation” category, presented on May 25, 2000 to Jacques Parenteau, the Quebec company’s vice president – sales, by Guy Julien, Quebec Minister for Industry and Trade.
New acquisitions

Colas consolidates its Asian positions
Following the signing of a memorandum of understanding with the majority shareholder of Tipco Asphalt Public Company (Tasco), Colas will acquire 22.7% of the capital of the company, which is listed on the Bangkok stock exchange. The leading manufacturer of bituminous products in Thailand, Tasco has turnover of $88 million. Production capacity is estimated at over a million metric tons, with volumes for 1999 totaling 600,000 metric tons. The agreement follows a partnership set up in 1992 and will lead to synergies between the two groups.

External growth in North America
With the acquisition of Ogallala Ready Mix in Nebraska and Midland Asphalt in New York State, and an asset swap with Hanson in Pennsylvania and New York State, Colas has extended its territorial coverage of the United States. Expansion is also continuing in Canada, with the acquisition by Terus of Everall Construction, a company that has four long-term road maintenance contracts.

Colas moves into southern Africa
The new Colas South Africa subsidiary has acquired a network consisting of nine binder plants and five sales depots in South Africa, Namibia and Zambia. Between them, the plants employ 180 people and produce 70,000 metric tons of binder. This acquisition strengthens the presence of Colas on the African continent: the Group is already well established in the north African countries and in west and central Africa.

New plant acquisition in Slovakia
Within the framework of its central European development strategy, Colas has acquired a firm in the Slovak Republic. The Cesty-Nitra company employs 650 people in the sector of road maintenance and construction (engineering structures, earthworks, surfacing, draining). In 2000, Cesty-Nitra turnover is expected to reach €15 million.

New acquisitions in France
Colas has acquired a 90.8% stake in Perrier. The company has turnover of over €60 million, in three business areas – quarry operation, road works and earthworks. Colas has also acquired a 24.5% stake in the capital of Someca, which operates four limestone quarries in the Department of the Var, generating turnover of roughly €23 million. Scrg subsidiary Resipoly has acquired Chryso; the new entity will be leader on the floor surfacing market for sports, decorative, safety and industrial surfaces. Colas has also bought the Axima group of road building companies, which reported turnover of €84 million in 1999. This operation strengthens the Group’s positions in the Lyon region and the east and south of France.

SEMINAR
Bitumen emulsion in Egypt
Last May in Cairo, Colas took part in a seminar on bitumen emulsions and their applications for roads, bridges and road transport, held under the auspices of the Egyptian government. The seminar took place during the run-up to the opening of an emulsion plant in Alexandria, with the aim of promoting bitumen emulsions for the maintenance and construction of roadways. A less costly and more environmentally friendly solution, bitumen emulsions also contribute to saving energy and represent an excellent opportunity for the Egyptian road network.
There are some products that are like great men: they so change everything that it becomes impossible to remember what life was like before their time. In the universe of industry, the development by Colas at the start of the 1970s of the first bituminous geotextile membranes was an event of this order. The Coletanche story was under way…
After spending ten years positioned on the water reservoir market niche, Coletanche membranes started to win industry-wide acclaim at the start of the 1980s, when industries began setting up environmental agendas. Used in applications such as containment of industrial and household waste, green waste compost zones, bottom ash zones and all the road and motorway applications arising from water conservation legislation, Coletanche geomembrane gradually became the industry standard. Many storm-water catchment basins were built at the edge of roads to collect the water that runs off during heavy rain. Similarly, many kilometers of road were completely waterproofed to prevent rainwater runoff polluted by fuel and rubber tire residue from leaching into the groundwater.

A new plant

The result of this development is that in nearly 30 years, 7 million square meters of Coletanche have been unrolled in almost every part of the world. Since 1992, sales of Coletanche have grown thanks to the environment market. In the meantime, Colas has become leader on the geomembrane market for hydraulic applications.

The Group made the decision to construct a new plant dedicated to Coletanche products on the Irish coast. Work commenced in September 1999 and was completed by Spring 2000, with the first “Irish” Coletanche membrane rolling out on May 16. And roll out it did, in ever wider dimensions than previously with rolls of 5.15 meters instead of 4 meters in width.

The larger size meant both a reduction of 20% in the number of joints to be made and faster laying time, giving a better final quality to the job.

Two major projects

At the start of 2000, two major waterproofing projects were deployed thanks to the new production coming from the Irish plant. The first contract involved the refurbishment of a reservoir on the Eurotunnel site in the Nord-Picardie region, where an old PVC waterproof liner product was replaced by a new Coletanche NTP2 geomembrane over a surface of 26,000 square meters.

The second contract was to build...
a 600,000 cubic meter catchment basin for the Saint-Louis sugar refinery at Eppeville, near Saint-Quentin, also in northern France. 40,000 square meters of Coletanche NTP3 were used to line the bottom and 30,000 square meters of Coletanche were applied to the inside of the embankments.

A product for the future
By the end of the current year, new versions of Coletanche are expected from Ireland, such as the CS (Chemical Safety) grade, which has exceptional resistance to chemical products and the leachates (polluted liquid residue) which are often found at the bottom of industrial or domestic waste landfills.

After its first three highly successful decades, Coletanche will surely continue to make history for quite some time to come.

TECHNIQUE

Axter – the Smac brand of waterproofing

In 1999, 26 million square meters of bituminous membrane (the equivalent of 87,000 metric tons) were produced in the Axter plants at Précy-sur-Oise, north of the Paris region, and Courchelettes, in northern France. Axter, a subsidiary of Smac, manufactures and markets waterproof membranes in 1- or 2-meter widths for contractors involved in shell construction. Every year it exports 40% of its production to some fifty countries in Europe, Africa, the Middle East and the Far East, representing over 6,000 trucks and containers. Axter also produces 33,000 skylights in its plant at Sons-et-Ronchères in northern France. Although Smac is Axter’s leading French outlet, Axter also sells to many different types of customer, such as waterproofing specialists, merchants and do-it-yourself superstores. In its approved training center, Axter products are supported by specialist training in the laying of waterproofing products. With its comprehensive offering, Axter is fast becoming a major player in the waterproofing market.
Colas IDFN’s Essonne agency carried out its first Colgrip contract on the A10 motorway in November 1999. A particularly dangerous bend, nicknamed “the submarine”, was covered with Colgrip over a 6,000 square meter area.

Colgrip is a safety surface dressing developed twenty years ago by Colas UK under the name of Spraygrip, which covers more than 1.5 million square meters of roadway in the London area. “In the case of the submarine bend, accidents involving physical injury dropped from nine (with ten people injured) during the winter of 1998-1999 to one during the winter 1999-2000 (with just one person injured),” explains Pierre Calvin, marketing manager of Colas France. “Accidents with no injury also dropped sharply, which reduces the risk of secondary accidents and emergency operations on the spot. The result is clearly linked to the very strong degree of grip that the Colgrip surface provides. The incidence of cars driving off the road was sharply reduced.”

On average, braking distances are halved with Colgrip. “This is another of its advantages,” adds Calvin. “Using it makes the road safer for all users, both in towns and in the open country on sites such as pedestrian crossings, roundabouts and intersections.”

The appearance of Colgrip is very similar to that of a traditional asphalt surface dressing, even though it is slightly lighter in colour. Its cost is lower than that of other safety equipment which achieves the same end. Cost studies conducted over a number of years on sites which have been surfaced in Colgrip show that a return on investment can be expected generally in under a year.
Competitors in the 17th Screg Challenge met for this year’s regatta at Lavandou on France’s Mediterranean coast. From June 1 to 4, over the three-day Ascension Holiday weekend, 58 sailing boats took part in the races in a scorching temperatures… a great deal of sun, but very little wind!

An evening get-together in the magnificent setting of the Port-Cros island off the Lavandou peninsula, provided a delightful, warm atmosphere for this nautical event and put competitors, some of whom were feeling the stress of their first run with the regatta, at their ease. This was the certainly the case for the Colas University boat. The crew of six young people, who had followed the Colas University five-week training course during the previous winter, had decided to further the relationship they had struck up during their course by participating in the races. “Two of us were already experienced sailors. As for the four others, they were very keen to experience the atmosphere of a sailing regatta and, of course, to take place in a sporting event,” explained crew member Thierry Ambroise, a 26-year old management auditor. Once the idea had been proposed, their request to take part received approval from management, and after two days of intensive practice, they were capable of sailing “with the big boys”, even achieving an honorable 12th place in the road builders’ category, and were 38th in the overall classification.

The success was entirely due, in the crew’s unanimous opinion, to the talents of skipper, Jean-François Joubert, a site engineer from Gagnaire in Saint-Etienne, who was taking part in the regatta for the second time. The crew’s only regret was that they did not have people from other Colas University sessions as crew members.
A stylish new collection of protective clothing

To comply with new safety standards, promote a strong corporate image and further enhance the comfort – and style – of its employees, the Colas Group has launched a new collection of protective clothing, including jumpsuits, overalls, sweaters, and high visibility cold-weather and rain garments. The collection is coordinated to match the corporate colors of Group brands Colas, Screg, Sacer, Smac and Spac.

Comfortable, elegant and perfectly tailored to rugged on-site working conditions, the products were specially modeled for the Compagnons de la Route vice presidents in France during a fashion show with a difference at Group headquarters in the autumn. The clothes are also presented on a CD-ROM, which can be used to directly order the garments selected via e-mail. All of the Group’s site workers will be able to wear this attractive collection by the beginning of January 2001.
The quarry operated by Sacer Atlantique for ten years and located at Saint-Avé in Brittany was the source of a number of neighborhood and environmental nuisances often encountered around quarry sites. A €5.3 million investment program was therefore implemented in 1992 that aimed at the complete refurbishment of the site. Its major objectives: the best possible integration of the quarry into its surroundings and the comfort of local residents.
Replanting the first deposit

Acquired back in 1990 by Sacer Atlantique, the Seca quarry contains two deposits of granite. The first, operation of which ceased several years ago, has already benefited from total rehabilitation as part of a long-term reclamation program. Many cubic meters of plant soil were brought in to landscape the terrain and help plant life to reclaim the quarry. Trees of various local species were planted to ensure that the reclaimed quarry would be perfectly integrated into the regional biotope. There are oaks and chestnuts growing alongside birch trees, gorse bushes and reeds. The banks of the river running between the two deposits have been cleared, and the quality of its water is checked regularly. Local anglers have even started to frequent it.

A second deposit under operation

Blasting is carried out once a week at Saint-Avé by Seca engineering. The high level of care taken with these operations has meant better control of noise and vibration. Dust from the movement of trucks and from blasting is kept down thanks to the installation of sprinklers that use the pumped out drainage water.

A properly managed rehabilitation operation

Today, the quarry site is fully integrated into the environment of the Saint-Avé village. Every day the local residents appreciate the initiatives taken by Sacer Atlantique and benefit from the investments that it has made. It now remains to convince the local council that quarry operations can be continued until 2010, as there will be more than sufficient natural resources until then.
Colas and the environment – a new form of expertise

For a Group that builds roads over the four corners of the earth, environmental conservation is clearly a priority. This is why Colas is developing a pro-active environmental policy adapted by each subsidiary to suit local conditions.
A generally applied policy of selective waste collection, development of recyclable material, increasingly stringent anti-pollution standards for industrial facilities, the hyper-awareness of the public – it has taken just a few years for the environment to become a non-negotiable issue. As world leader on the road construction market, the Group obviously plays a part in this evolution. Colas activities are not especially polluting ones; its job-sites and plants tend to be massive rather than actually aggressive to nature. But, just as for all other transnational industrial groups, Colas must play its part in environmental conservation. This is why senior management has defined a pro-active policy that goes well beyond compliance with regulation and legislation. In fact, Group action in this area is not something recent. “We have unwittingly been contributing to environmental protection for a long time past,” emphasizes Henri Molleron, president of Colas Environment and Recycling (CER). “When teams seal a landfill, replant a quarry, protect a drinking water reservoir or an underground water table, we are indeed protecting the environment! The first contracts for sealing landfills were carried out over fifteen years ago. In 1992 we contracted to cover over the low-level radioactive waste disposal sites at the La Hague uranium reprocessing plant on the northern French coast with bituminous geomembrane. At the time we treated the job as a special case but had not developed any specific technology.” Since then, Colas has focused on this growth segment and has built up a specialized activity based on it.
Quality isn’t always easy

In appearance it is an ordinary project. 1,000 metric tons of powdered material have to be moved from a site. But the powder in question is a heavily chlorine-loaded pesticide that has to be carefully handled to avoid contact with the air. The contracting authority decided to call in CER, which has special instruments to monitor the concentration of polluting agents in the atmosphere. Opting for quality is not, however, the general rule. French environmental legislation is still fairly slack and nothing obliges operators to take stringent precautions. After all, to get rid of the powder, an ordinary backhoe and a few trucks would have been enough! To avoid abuses of this nature, the CER is conducting a campaign within the industry to move towards higher quality practices. The campaign can only benefit both the environment and safety.

Recycling waste

It is up to the subsidiaries to implement their own environmental policies adapting them to the needs of their local territories. Most of them now practice selective collection of waste. This is the case for Screg Est, as Isabelle Chanas, head of environmental action, explains: “All the waste from road construction sites, quarries or asphalt mixing plants is brought to sorting stations. Some inert matter, like plant soil, is directly re-utilized. Other products, such as backfill and roadway demolition material, is crushed before being recycled on other jobs. Asphalt is 100% recycled in asphalt plants or used for sub-grades. Scrap iron is recycled in the traditional manner.”

Like Screg Est, all the French subsidiaries and most of the non-French subsidiaries have also set up a dedicated recycling line for workshop waste (used lubricants, aerosols, etc.). Collection is organized.
separately, directly from job-sites, and the products are then shipped via a specialized transporter to approved recycling streams. To help Screg Est personnel adapt to these changes, they received training in sorting and recovering waste. Although profit centers produce waste, they also recycle a great deal of it. For many years Colas has been using crumb rubber from used tires in its noise-reducing road surface material, Colsoft. The list of recycled products has now grown even longer. For example, TVPI, a subsidiary of Screg Nord-Picardie, recycles foundry sand either ex-furnace or as a component of cement-bound aggregates. “We also sell on ex-furnace slag and we will soon be reusing it as a substitute for primary materials used in treated aggregates,” says Gwenael Groizeleau, environment manager at Screg Nord-Picardie. Selective collection and implementation of recovery and recycling lines are procedures that were put into place before the publication in February 2000 of a French Environment Ministry circular on the management of waste from construction and public works sites. This official document set the seal of approval on all of the efforts that Colas had been making for many years.

**A fully-fledged subsidiary**

Whether a community or ethical preoccupation, the environment is a commercial activity in its own right. Throughout the world, contaminated soil requires remedial action. This has become the specialty of Colas Environment and Recycling, a subsidiary set up in 1995. “Our flagship activity remains the cleaning of contaminated soil by thermal desorption, but we also have the capability to perform all services that are in line with those of Group businesses, such as the containment of contaminated sites,” explains Henri Molleron. This is a promising area for business development, but requires strict precautions. Manipulation of noxious substances or contaminated soil requires special expertise so as to avoid all risks of re-polluting. Fortunately, sophisticated technical equipment is available, such as a backhoe with a sealed cab and protective clothing of the type used in the nuclear industry. CER has already a number of major projects to its credit.

**It’s a clean machine!**

For the last two years, the Spac Suburbaine agencies have been using equipment that allows them to keep clean job-sites they are performing in an urban environment, and especially their surrounding area. Mounted on a 26-metric ton truck body, the vacuum excavator has been designed to limit the risks from the degradation of city streets and sidewalks that job-sites can cause. The machine sucks up water, earth, mud and even rocks. It also gets rid of the dust that construction work produces. To help maintain the quality of the surrounding air, the box of the truck is fitted with sleeve filters that keep the air blown out by the vacuum cleaner (50 mg/cubic meter) clean. Environmental protection also happens in towns!

---

**Coletanche, Colsoft and Colnet are products designed to help protect the environment.**
including a world first at Amponville, near Fontainebleau. This project required the cleaning up of a site previously used to dump drums containing chlorophenol. To carry out the work, a hole, 20 meters diameter and 30 meters deep – the equivalent of a ten-story building – was excavated and entirely lined in concrete.

Other subsidiaries also incorporate the environment into their standard operations. For example, Ouvrard, a subsidiary of Sacer Paris-Nord, refurbishes city waste-water networks. The old conduits are lined from the inside with a glass fiber sheath. The use of this process means that conduits can be renovated rather than replaced, so avoiding any need to dig the road up. This development, highly praised by local authorities, complies with legislation on the quality of water by preventing waste water leaching into the water table.

The environment is major avenue of exploration for the research and development department. It is an activity that cuts both ways. “We try, as much as possible, to exclude from our lists of products those which present a risk to the environment or to health. We were among the first, at the start of the 1990s, to drop coal-derived carcinogenic materials, such as tar, even though there was no legislation to oblige us to do so and some of our competitors continue to use it”, says Michel Chappat, head of Group Research and Development. The department has also eliminated products that are the focus of less media attention such as flux and volatile chlorate solutions which contribute to the greenhouse effect.

A range of new products

Inversely, environmental concern leads to the development of new products. Sometimes these are to provide substitutes for materials that have been abandoned. This is not always easy, particularly with a product such as tar, which has excellent resistance to chemical substances. Michel Chappat’s teams seem, however, to have succeeded. The product they have developed is Coltanche and it is designed specifically for reservoirs. The product is a geotextile membrane that can be used to protect an area from effluent that leaches from roadways or rejects from industrial plants, such as

he explains. “On the Lens slag heap, for example, we keep dust down with sprinkler systems. In sand quarries, the risk is accidental pollution of the water table. For this reason we have created a sealed, off-center zone, for filling the trucks. In asphalt plants we try to reduce noise by cladding the dryer-burners. Incidentally, one of the Scrg Nord-Picardie plants is among the seven pilot sites that are certified ISO 14000 compliant.”
hydrocarbons and other hazardous materials.
To deal with certain specific problems, Group researchers have developed entirely new products. This is what is behind the development of Colnet and Néoclean, a new range of clean tack coats that site trucks can drive over without tracking material on their wheels to the surrounding area. Another innovation is asphalt road surfacing material, such as Colsoft, which incorporates components from used tires. This product is a “two for the price of one” solution. On the one hand it considerably reduces the noise that residents living near major through-roads have to endure, improving their quality of life. On the other hand, it is an excellent outlet for used tires which, when not recycled, are a real environmental problem. Simultaneously, researchers are trying to find new solutions, such as Multi-col, that reduce the amount of asphalt used on sites.

ISO 14000 certification

In this context, some subsidiaries and profit centers have decided to prepare for ISO 14000 certification. In France, the process is underway in the Group’s asphalt plants. Seven pilot sites gained certification between October 1999 and March 2000. A new wave will be applying in November. According to deputy plant manager Jean-Pierre Reymonet, the aim is, ultimately, for all the Group’s plants to be certified.

Although the environmental initiative requires management and represents a certain cost, in the long run it is profitable for the Group. Firstly because all negligence bears a heavy cost. For example the cleaning of a site where a chemical company dumped 1,000 drums of polluting agents twenty years ago, today costs several million euros. Had the chemicals been treated at the time, the cost would have been €35,000 at most. The risk is particularly high in the United States, where there is virtually no statute of limitations on acts of pollution, nor is liability limited financially.

Finally, taking care of the environment is a means of strengthening the Group’s image. From now on, whenever Colas opens up a quarry or starts an asphalt plant, the local community and its representatives are widely consulted and they are informed of what the activity really involves. The ensuing dialogue is always profitable for the environment.

Seven asphalt plants have been certified ISO 14000. More will follow this year.
One is in charge of a research laboratory, another runs a mobile asphalt mixing plant, a third is building a runway, another one is a site engineer on projects in Africa, yet another is a plant manager...

Every day, these people give it all they’ve got to make Colas succeed.
Cross-Channel culture shock

Jérôme Laury, plant manager, United Kingdom

Since last March, Jérôme Laury has been a Londoner. "I thought that because England was really right next door, I would not feel a great upheaval when I went there. Wrong! Given my Latin background, I've been through a full-blown case of culture shock!" Admittedly, Jérôme had never previously ventured very far from his roots in southwestern France. "After high school, I got a technical university diploma in mechanical engineering, following it up with a BA and master's in mechanical construction at the University of Toulouse. I then progressed to a teacher training program in mechanics. After my military service, though, I decided it was high time I got a proper job! Colas was my first employer." In August 1989, he was posted in Thuir, near Perpignan in southwestern France. "I kept moving from job to job," he recollects, "changing the screen in a quarry, spending three months in the workshop, driving trucks, and then assisting the plant manager in Montpellier... I learned a lot." In 1990, Jérôme attended Colas University, and in January 1991, he was appointed head of plant for the Midi-Pyrénées region, based in Toulouse, where he stayed until his recent move to Colas Ltd at Rowfant, in South London. As plant manager for the United Kingdom, Jérôme supervises the smooth running of two coating plants, three emulsion plants (including the Warrington plant that produces roughly 50,000 metric tons per year) and all the rest of the subsidiary's equipment. Jérôme has little chance to practice his favorite pastime of mountain hiking in Britain, but he is adapting to his new living conditions. "I'm gradually discovering the country. It's a great opportunity for me, on both a professional and personal level."
A quick learner

**Christophe Ramel, plant supervisor, France**

At age 17, Christophe Ramel had only one thought in mind – leaving school and getting a job. After training, he became a lathe operator and went to work for an undersea cable company based in Lorient. “Three years down the road I realized I didn’t want to spend the rest of my life hauling cables!” he laughs. “I studied for a technical qualification, and trained as an automation maintenance technician. I then came across a Screg Ouest want ad for an operator of a mobile asphalt mixing plant.”

By operating the plant, Christophe quickly learned the job. For the last seven years he has been plant manager at Lorient. His job is to see the trucks are kept supplied and deal with plant maintenance. Christophe says: “I am entirely responsible for seeing the plant functions correctly. It is a job that gives me a lot of independence and allows me to make decisions.”

In his spare time, he likes kayaking. “Doing sports is a way of getting to know people better. But my favorite thing is to take my two sons out on the water with me. They really have a great time.”

Traveling light

**Stéphane de Rességuier, site engineer, Ivory Coast**

When he graduated from engineering school with a specialization in public works, Stéphane rapidly put his diploma to work. “Following a student internship with Colas in Burkina Faso in 1997 I found myself in the heart of the Gabon bush where I was on a French military service secondment program, which is where I really learned the job. Hired in November 1999, I set off straight away for the Ivory Coast to the site that I manage today – the modernization of the fruit terminal of the Abidjan Port Authority – on a 20-month stint.”

Is he from a family of travellers, or did he just want to get to know the African continent? “It was just a wish to see far-away places, work on major structures and take on responsibility, with a dash of adventure and an exotic setting for good measure!” he says.

It took him no time at all to make up his mind
An applied researcher

Graziella Durand, head of the LCR binder section, France

After a doctoral thesis on polymers at the ENSCP school of engineering studies and four years at the Hoechst research laboratories, Graziella Durand already knew everything there was to know about water-based paints, textiles and adhesives. “I was already working on emulsions,” she comments. “In 1992, I arrived at the Colas central research laboratory, and there I discovered other application areas.”

Today, Graziella is head of the binder section, made up of a dozen engineers and technicians. She devotes 60% of her time to research and 40% to support for the subsidiaries to help them develop their own formulations. “It’s very interesting work,” she says, “because we are in touch with the entire world and we deal with problems in the field, which is very different to the basic research that we carry out with university laboratories.” A day in the lab, another preparing an upcoming convention, Graziella is also in charge of quality for the Colas France technical department. Despite a crowded professional life, Graziella spends as much time as possible with her family. “My two daughters, aged 10 and 13, both compete in artistic and rhythmic gymnastics. I am chairman of a sports club in Chevreuse, the suburb where we live, just outside Paris. I find it a great way of making contact with other parents and of taking part in the life of the community.” Anyway, it makes a change from bitumen and polymers.

“I shall take every opportunity I am presented with, in Africa or elsewhere.”
**Facing up to responsibility**

**Frédéric Vigouroux, site engineer, New Caledonia**

Frédéric Vigouroux has fitted a lot in since graduating from his engineering school only four years ago. First came military service in the Engineering Corps in French Guyana. The next year, returning to metropolitan France, he joined Colas to discover new horizons. “I’ve always liked being on the move, traveling and discovering different cultures. Colas offered me an expatriate lifestyle, and I didn’t hesitate!” smiles the 27-year-old.

There was no stopping Frédéric: first in Madagascar, where he worked on the local road network, the Sainte-Marie airport and in the Fort-Dauphin area, then off to New Caledonia. “I was a site engineer on the urban expressway project for just over a year.” Today, he is in charge of the Vanuatu airport site. On this small island, situated 600 km from New Caledonia, Frédéric is in charge of implementing logistics, carrying out costing, and coordinating both site teams and subcontractors. Frédéric acknowledges that he has taken on heavy responsibility, with some 70 people to manage and difficulties specific to job-sites in these latitudes. “The rain can be a major problem,” he agrees. “You can get 90 mm of rainfall in only 24 hours!”

But responsibility does not bother Frédéric. A new one he will soon be taking on is that of fatherhood. Even when the baby comes along, he and his wife do not plan to stint on traveling, especially during their vacations. “We love mountain hiking,” says Frédéric. “It’s a great way of getting rid of stress.”

**A preference for renovation**

**Bernard de Géa, site supervisor, France**

At the age of 45, site supervisor Bernard de Géa has plenty of travels under his belt. Not only in Algeria, where he spent four years building a refinery and renovating schools, and Saudi Arabia, where he took part in constructing a palace, but also in France, where his sites have taken him to all parts. “I’ve never stopped discovering France,” says Bernard. “That’s one of the advantages of this business: you’re in the open air all year round, and always in different places.”

The wanderer joined BRS in 1994, and he appreciates the diversity of projects he works on. “I am
Building in the brush

Roland Rakotondrasoa, works engineer, Mauritius

After graduating from Madagascar’s EESP engineering school, Roland Rakotondrasoa began his career at the island’s National Laboratory, where he specialized in geotechnical studies of materials before and after application. For seven years, he worked on the length and breadth of the Madagascar road network, before joining BCEOM as a control engineer. Colas spotted the Madagascan state representative in 1988. “I had to think long and hard before taking the decision to join the Group,” he admits.

“During my first year, I was sent off to work as laboratory manager in central Africa.” In 1994, civil war was raging in Rwanda. “I’d say it was the toughest period of my life,” recalls Roland. “I was at a jobsite in the brush, some 300 kilometers from my family, and I was without news of them for ten days.” Evacuation from the war zone was followed by a stint in Ghana, where he stayed for two years. Then it was back to the Indian Ocean for Roland. “Mayotte, Mauritius, and now Rodrigues… I have kept on the move!”

Today, his two sons have grown up. “The day the older one graduates from high school will be the time to envisage another lifestyle, although I’ve always liked to travel. It’s rewarding, because you never know what is going to happen and you have to be ready for everything! Every country has its own standards and constraints. Construction is the same everywhere, it’s the methods that are different.”

“Construction is the same everywhere, it’s the methods that are different.”

particularly fond of building anti-noise walls, but the technical side is more interesting in repair work. Last year, we had a job consisting of renovating a 19th century lock gate, needing 4,000 square meters of coating and highly technical products which required us to be very rigorous in proportioning for the mixes.”

Bernard is also often called to restore retaining walls in the mountains. “What I really get a thrill from is seeing the physical results of my work,” he says. Bernard would like nothing better than to pass on his love of his work to others: “It’s a shame there isn’t a counselling system to train youngsters in the know-how of the profession.” With someone like Bernard to guide them, it’s obvious that the future generation would really be motivated!
A change of direction

Christian Laplace, vice president, Compagnons de la Route, France

Having entered Colas as a temporary laborer in 1990, Christian Laplace now frequents Alain Dupont and other senior managers during meetings at the Group’s Paris headquarters. But being vice president of the Compagnons de la Route has not turned Christian’s head. The 39-year-old foreman says he just gets satisfaction from “being able to meet the senior people in the company” and to represent the Group’s Compagnons.

His other source of satisfaction is more down to earth – the projects that he works on and where he feels at home. He recently supervised the transport of asphalt mix to a 10-kilometer motorway renovation site in Mâcon. “I had 27 trucks on the move. It was my first jobsite with so much responsibility. We had drawn up a traffic plan, but we had to fully anticipate the coordination of the machines. I got worried every single morning,” he recounts. “The start-up had to go without a single hitch, otherwise we would be in trouble. I would think out an organizational scenario in my head, and then try for maximum efficiency.” Apart from a paver that broke down, the project has left him with fond memories. “My strongest emotions came from the first sites that I did alone,” says Christian.

A native of the Beaujolais countryside, he came late to public works after a stint as a site electrician and some eleven years in the building industry. A change of direction that finally earned him a Losange d’Or award in 1993.

A few thousand kilometers from

Serge Sogbossi, site engineer, Benin

This young man from Benin has a flawless record. After his high-school diploma he competed for a seat at the Ecole Polytechnique engineering school of Thies, Senegal, and won. Fascinated by civil engineering, Serge graduated in civil engineering design in 1992 and immediately applied for a job with Colas. “There were very few of us who wanted to go into roads,” he recalls. “I had already applied for a job at Colas before graduating. When I met the head of the agency, I explained to him that I really loved roads and that I couldn’t imagine working on anything else. It paid off! I love working over great distances, going through unknown villages, being in the field... opening up new roads through the bush so that others can take the road after us. I started as a trainee...
Tony Broom, CEO, Isle of Man

Since 1975, the history of the development of Colas Isle of Man has been closely related to the career path of Tony Broom, who was appointed to direct and develop the new company that October. “After leaving high school, I worked for the tax service while studying for a business management diploma,” he reminisces. “I then spent two years in the RAF before continuing my professional career in a number of companies over a period of twelve years or so. When I took over the management of Colas Isle of Man, its main business was importing bitumen, with a little road surfacing and some road marking work.” Today the Group has greatly developed its business on the island. “I am proud to say it was on our island that the name of Colas was used for the first time and that it is from here that the reputation of the Group spread out over the whole of the British Isles,” he adds. Since 1999 Tony has embarked on a new career – highly active semi-retirement. He has trained his successor, Stephen Lowe, and has immersed himself in the life of the community. He chairs some half-dozen business committees and organizations that are directly linked to the economic life of the island. As he says, “It’s a great way of finding out what is happening and going to happen in terms of regional decision-making.”

Colas Man on the Isle of Man

engineer and quickly rose up to become site manager.”
Mali, Benin, Niger, Burkina Faso, asphalt mix and laterite – Serge has clocked up many kilometers of road in many countries, but would now like to settle down a bit. He feels that bringing up his children has become at least as important in his life as roads!

“I like going through unknown villages and opening up new roads.”
Yves LeBouthillier,
Performance bond manager at Axa Global Risks.
A member of the “Order of Engineers” in Quebec, Yves LeBouthillier has worked in Quebec in both the public and private sectors, insuring many projects by taking full advantage of his engineering knowledge.

What is the difference between bank guarantees and performance bonds?
Performance bonds guarantee the proper completion of the work as opposed to a bank guarantee, which only pays out an indemnity. A bank guarantee is a separate cash payment which is made on demand, while a performance bond is a guarantee that implies the physical involvement of a third party. It allows for a partnership with companies that is technical as well as financial, and has the advantage of helping eliminate bids that are too low or not qualified. In Europe, the guarantee, which covers approximately 10% of the amount of the contract, is dominated by the banking industry. In the United States and Canada, the performance bond has existed for over a hundred years and is only issued by insurance companies.

Why is France so oriented towards bank guarantees?
Probably because until now, there were no other products available on the domestic market and/or out of sheer habit. But with the opening up of the European market, in which the contracting authorities cannot possibly know all of the companies that are tendering, the use of performance bonds is going to develop. The fact that an insurance company agrees to underwrite a risk is already a form of guarantee for the contracting authority.

What can Axa Global Risks contribute?
It can bring its considerable North American expertise to the French market. What’s more, the French federation of insurance companies has set up a performance bond club which unites insurers, re-insurers and other market players. This proves the interest raised by the arrival of performance bonds on the French market.

What is the cost of a performance bond?
It is tied to the financial solvability of the contracting company, its technical capabilities, the amount underwritten, the length of the project and the risks involved and also to the geographical area in question. The cost may change according to circumstances and depending on relations of trust developed with the contractors. It can even become a sort of bilateral contract of confidence. Bonding facilities can also be set up with pre-approved quotations – in fact this is how performance bonds work in North America.

In France today, the private housing sector has already adopted the principle of the compulsory performance bond. Could the practice soon spread to the road construction industry?
Of course. Both the French and European markets are changing. Right now, everyone is watching and waiting, but we are already receiving entirely French requests for performance bonds. The decentralization of contracting authorities should favor the development of underwriting. Some public-sector companies, such as Gaz de France, already ask companies that work with them for performance bonds.

What is your personal view?
I’m sure that in five years at most, we shall benefit from a reform of public-sector contracts and consequently from an evolution in guarantee practices. The French have fallen behind more because of a lack of knowledge of these products than of a rejection of them. The proof of this is in the evolution we have seen over the past few years. We therefore have an educational role to play. Since Axa Global Risks has decided to offer performance bonds, we have had a large number of requests. Today, some European banks insist on receiving a performance bond when they are behind a project. It flattens out the risks and guarantees proper completion of the work. We think the future will be a bright one.
Gilles Johanet: for a modern, modular and open health-care system

Gilles Johanet manages France’s public health-care fund-holding organization. In June, he came to Group headquarters, where he spoke at the Cercle Colas about the road to good health.
For some years, you have said that you would like to reform the French public health-care system. What’s wrong with the current system?

The French public health-care system has retained in its overall organization the same structure that it had when it was set up at the end of the Second World War. The scandals which have rocked the medical world in recent years, such as the HIV-contaminated blood cover-up, are only the external signs of internal dysfunction. The main problem is that French people covered by the system are in a relationship of total dependency vis-a-vis the medical profession. They have absolutely no access to information about the people who treat them, the forms of treatment available or medication. They make no decisions at all, even though it is their own health that is at stake! What is more, this type of obscurity holds sway to the detriment of the medical profession itself.

In spite of its failings, the French people say that they are satisfied with the system. How do you account for that?

The French system offers the possibility of limitless consumption. This is why, for want of anything better, it pleases the French people. It’s no coincidence that the French are now the largest consumers of prescription drugs in the world. But the drawbacks to this unbridled drug consumption are considerable. The level of non-subsidized prescription charges is increasing all the time, which is worrying French insurance contributors. The demand for greater openness and clarity in terms of treatment is starting to surface. The total absence of any system of quality certification for care providers, medical institutions or treatment is seen more and more as being something anomalous.

You say you are worried about the geographical spread of health-care professionals.

The situation in terms of health-care distribution is catastrophic in France. Members of the medical profession may open up practices wherever they wish. At the present time the public health-care insurance fund has absolutely no say in the matter. For this reason, it is unusual to see, for example, a correlation between the number of children and the number of pediatricians either within a French Department, or from one Department to another. Similarly, gynecologists do not set up practices in areas where there are the most women, but in high-income neighborhoods. The most serious discrepancy is in the number of public hospitals that exist in different parts of France. In theory, when the Government is involved, it is the common good which should prevail and guide the installation of public health-care facilities. However, inequality in access to health-care is made even worse by a very poor distribution of French public hospitals. It is also interesting to note that following the policy statement made by the CNAM [the public health-care fund-holder] in 1999, eminent players in the health-care system, such as the Ordre des Médecins [the French medical association] and the Fédération Hospitalière de France [the French Hospitals Federation] came out strongly against this total freedom to practice, which is nothing more than a costly form of anarchy.

Given such a context, what health-care system reforms do you propose?

I would like to see the French system apply three basic principles: openness, selection and modularity. It must first of all become open, so as to respond to the demands of the insurance contributors, who are also the users, and the health-care professionals. It must also become selective. For example, there should be periodic re-certification of health-care professionals depending on their level of recognized competence. It would also be logical for subsidies to be modulated in terms of the therapeutic effectiveness of the treatment given. The current system of automatic cover is absurd because it radically negates the principles of quality and specificity of needs. Finally, the system should place contributors at the forefront of the picture by giving them the role of decision-maker in matters relating to their own health, using as a basis the principles of openness and selectivity that I have just outlined.
Peter R. Bond: the road as an impulse

“You can take a man away from his country, but you can never take his country away from a man.”

The Colas Foundation invited you to produce a canvas on the theme of the road. What does this subject inspire in you?

A road transports us from one point to another, like an impulse running through the landscape. It only insinuates itself into my painting. I work with what man has added to the landscape – a road is the contribution that man makes to the construction of the landscape, and consequently to nature, with elements and materials such as stone and bitumen which, at the outset, are natural.

You were brought up in Australia. Do you draw inspiration from the wide open spaces in which you grew up?

Of course, open spaces are an inexhaustible source of inspiration. One day, someone said to me: “You can take a man away from his country, but you can never take his country away from a man.” In France, I find the same inspiration in the flat space of the Pays de Caux – the land of chalk cliffs – in Normandy.

You have lived in France for twenty years now. What do the French think of your work?

The range of colors in France is very complete and extremely changing, something which is unique in the world. The public finds its own roots in my painting, the nature which has shaped it and from which it has grown distant. They take the time to contemplate the landscape, a silent image, which invites them on an interior journey.

Each of your paintings contains a specific element, an object from daily life. Is this some kind of signature?

These objects appear as I paint. They merge into the material. For me, everything is ephemeral, and these are traces of successive stages of the picture, which I permanently rework. The final canvas is born of the actual act of painting. These traces map out all the detours that I take before I arrive at the final picture.

Corporate foundations are committed to various forms of cultural patronage. What do you think of the choice taken by the Colas Foundation to support contemporary painting?

Patronage is something that is essential for artists: it’s a kind of recognition. A chosen theme, contrary to what you might think, can actually liberate the artist. It shows him what path he should take.
Acknowledgements

SOPHIE SADELER, TRACEY HOFHEINZ, JEAN-PIERRE PRAT, DENIS DUVILLARD, MARIE-PAULE GEOFFROY, SÉGOLÈNE CALAIS, EMMANUEL QUISSON, PATRICK ANDRAUD, JEAN Pecher, JEAN-CLAUDE PRESTI, GEORGES BOULOS, JEAN-CLAUDE RIALLAND, DIDIER THOURET, PIERRE DORCHIES, BERNARD BREUL, MARTINE DURIEZ, BERNARD JANVIER, JEAN-PIERRE REYMONET, JEAN-FRANÇOIS JOUBERT, PIERRE CALVIN, DENIS PAGOT, ELISABETH SISSAN, SOPHIE GENG, MARIE-PIERRE GIVAUDIN, ESTELLE FOURMY, ISABELLE CHANAS, GWENAEL GROIZELEAU, FRANÇOIS CHAIGNON, JEAN-LUC GAUTIER, JOE DINNEN, ALAIN DESVAUX, THIERRY AMBROISE, GORDON CRAWLEY, DAN GARCIA, ALEX SAPALA, THIERRY POIROT
“The road is more an abstraction than a reality in nature. It is the trace made by man in the landscape, telling of him but not showing him.”

Peter R. Bond has exhibited at many galleries, including:

1999:
Maison Henri IV, Saint-Valery-en-Caux.

1998:
Galerie Bruno Delaune, Paris.
Galerie d’art contemporain, Montfort-l’Amaury.
L’Atrium, Chaville.

1997:
Palais Bénédictine, Fécamp.
Galerie Bruno Delaune, Ebretal.

Directions
The environment – a new form of expertise

Intersections
with Yves LeBouthillier

EN ROUTE
On a mountainside in Alaska