A Strategic Proposal for the disused Limestone Quarry, St. Lucia, Caserta, S. Italy.

Abandoned industrial landscapes are not typically the setting for new architectural or landscape projects, but the opportunities offered by the diversity of landscape conditions, buildings and artifacts in and around the limestone quarry at S. Lucia are fascinating. The existing built structures range in age and type from the cultivated historic limestone walls of the monastery, to the large redundant reinforced concrete buildings of the quarry. Each of these structures has its own presence and sense of location with respect to the natural landscape and the man-made topographies of the quarry. This project builds specifically on the strong existing characteristics of this situation and does not seek to replace these with any pre-existing model of an ideal landscape. Such ideal models are not deemed appropriate to these conditions.

The current form of this landscape has been determined largely by the recent mining operations which have provided limestone to the construction industry of Napoli. This has been seen to be a legitimate economic activity up until the present day when a shift in the attitudes towards the destruction of the natural landscape have caused a re-evaluation of the value of this operation. This landscape of massive excavation, with its vast expanse of exposed rock faces can then be seen as a direct result of the economic forces and opportunistic desires of the late twentieth century. The quarrying operations have exposed the blank, white limestone foundation of the landscape allow us to apprehend the underlying geology of Caserta. This project treats this newly created landscape as a kind of second nature to that of the 'verdant campagna' which existed before in this place and which continues to exist beyond the boundaries of the quarry.

We propose that this existing condition be accepted and appreciated as, 'a thing in itself'. Through the introduction of public access programs and limited commercial development, the existing stigmas of political association could be erased and this place become again part of the public domain of the region rather than being a place of exclusion. Our future vision of the quarry is then something like an inhabited wilderness or park, open to public access and supporting a selected range of public and commercial uses.

This work of transformation requires a sensible and sustainable development strategy: at one level this might simply mean a place where local people might go for a walk; Neapolitans could drive from the city at the weekend for good air, scenic views and al fresco eating; coach tours could add this place to the existing circuit of historic sites, the Palazzo Reale at Caserta, the silkworks at S. Angelo in Formis, Vanvetelli's aqueduct and the S. Lucia monastery, as a place from which to view the dramatic landscape of the plain. In walking around the quarry and its surrounding landscapes, we have begun to understand some of its essential characteristics. We have compiled a large body of documentary material including an extensive photographic documentation of existing site conditions, this we have used in our subsequent work as a kind of visual registry. By reviewing this inventory of various structures and spaces, we observe that many display intelligence in their strategic placing within the quarry as points or spatial definers.

This experience of the quarry, as a place to be walked around and across, has suggested to us the idea of a series of circuits around the quarry of varying duration for use by walkers or those on horseback. This series of walking/riding routes would incorporate the existing paths found beyond the lip of the quarry, supplementing these with a series of new routes to be established across the quarry itself.

As part of this new pedestrian access system, we have proposed the introduction of three small-scale interventions into the existing landscape of the quarry:

1 - A small parking structure which marks the edge of a new public space towards the west of the site.

2 - A broad viewing ramp located just below the new café and exhibition area.

3 - A second, more narrow ramp, downward toward the settlement, South at the base of the quarry.

These components together mark out a variety of routes and serve to support open and safe public access to the quarry. It is essential to the proposal of public access that the issue of safety is addressed, particularly with respect to the stability of the large limestone cliffs. Detailed site studies would need to be made to establish the long-term integrity and safety of the quarry walls, although initial specialist advice has suggested that the limestone is likely to perform well in terms of its long-term stability. Surplus material resulting from the old quarrying operations would be sorted in order of quality and particle size and stored in

dedicated storage sites (rock gardens). This material would act as a construction resource for future building work, either as graded fill, aggregate for concrete, or cut stone for fine landscape or building details. Any adjustments made to the existing rock face profiles under the program of safety measures would also produce useful construction material. A series of prominent surface water drainage channels is proposed for the top field. These serve to mark out a series of territories at this upper level of the site, but also act as a new infra-structural element: as part of an integrated water management system for the site these channels would drain to a large water storage tank. Winter rainfall would be collected and stored for use in the irrigation of sports pitches and market gardening cultivation on the lower terraces of the quarry during the dry summer months. All new landscape and building features are positioned in reaction to the existing structures and found spaces of the quarry.

Seven major spatial elements have been identified in the existing landscape, which condition this subsequent placement:

1 Empty, excavated basin / Dry, lower field / Opera / Movie, stage
2 Defined piazza / Arrival space
3 Intimate place / Rock gardens
4 Inhabited elevated dais / Public Field of activities
5 Shallow Basin / Verdant field
6 Extended Panoramic, excavated shelf / Balcony
7 Upper Plateau / Sports field

Looking out from the vantage-point of the quarry's rock terraces a number of set views are framed by the sharp cuts of the quarry edge. These views allow one to see out beyond the container of the quarry basin to the plain below and allow a sense of orientation within the larger landscape. The new routes around the quarry link together these outlook points.

Piazza of the Weigh Scales

The strong frontality of the main silo building and its adjacent ancillary 'chapel' suggest a formal definition of arrival, like entering into a small town square, a condition which we propose to maintain. This would be a space through which one would pass either driving or on foot, to enter the quarry. The colonnaded base of the existing building would act as a place to shelter from the sun, and from which to move through to the terraced rock gardens behind.

Silo Building as Exhibition Space

The industrial structures on the site are not only extraordinary features within the landscape but also offer some unique and potentially useful interior spaces. The vast, reinforced concrete, industrial space of the main silo building could be effectively converted for exhibition use. The building could be re-roofed, with partial glazing, to allow natural lighting of the space from above, a space which could carry the memory of the mining operations of the site while offering a generous setting for temporary or semi-permanent exhibitions, perhaps initially charting the building progress of the construction procedures on site.

The two giant-scaled, limestone-processing structures on the upper plateau would also be retained as testimony to the redundant engineering activities. These structures are ringed by a group of smaller, domestically scaled buildings, and together they act to structure the space of this upper level. New uses for these buildings would be established in negotiation with local actors, (local authorities and local business interests). A children's 'casa-latte' for instance, could be situated in one of the more house-like buildings, on the top plateau, elevated looking out the vast flat plain beyond.

At the base of the edge of the quarry - beneath its perceived southern boundary - we have introduced groves of olives between which vehicles may park before visitors climb the path to the quarry above. This surface treatment extends down the slopes in an attempt to integrate the adjacent landscape in the immediate vicinity, and ameliorate the often-problematic issue of sporadic car parking. This car park also serves a hostel, 'Bologna Towers' - a small cluster of new buildings where travelers enjoying the area and its sites may rest over night. The tops of these small towers rise above the inclined face of rock facing south, affording views to the flat plain. A constructed climbing wall and plate are positioned here too for safe public recreation and utilization of this vertical face. At the end of this space is a more formal, circular hotel and casino for private functions and

celebrations, its rooftop providing a penthouse bar for open air entertainment. The siting of these more conventional programs at this lower level is in response to the location of the adjacent settlement of which it may become absorbed and strengthen the sense of identity and local customs with the new ones of the quarry.

There is an opportunity to provide spaces for a variety of new public programs. This attitude toward the Cave of S. Lucia has the potential to become a prototype for the regeneration of other quarries in the region or indeed other similar sites in the south of Italy. The results however would almost certainly not be the same, but the process of assessment and structured re-appropriation and reintegration into the surrounding landscape could be used as a model.

Structural Engineers Report

Generally, the proposals involve cutting, attaching to and bearing on to the limestone. It will therefore be necessary to carefully survey the stone in the areas affected, in order to check the current stability of the formations, to assess the position of any fissures, and to establish a minimum safe bearing stress for the rock. Limestone is generally a fairly strong and stiff rock, and so it is expected to be easily adequate to support the new additions. Attachment to the rock faces will be made using drilled in anchors that will be grouted with either a cementitious or resin grout. These can be load-tested in-situ. Careful detailing will be required to make sure that water erosion will not weaken the attachment of the new structures. Generally, the new structures are proposed to be made using in-situ reinforced concrete. The site is in an area of low seismically. A detailed seismic survey will be required to check if there are any fault lines or other special features that will affect the forces for which the structures should be designed. Lateral stability to the new structures can in most cases be provided by the existing rock formations. Where this is not considered to be possible the structures will be designed with independent structural moment frames which will be capable of resisting the horizontal loads. *Jane Wernick*

Richard Serra:

" One way of adding to the existing context and thereby changing the content is through analyzing and assimilating environmental components, boundaries, edges, buildings, paths, the entire physiognomy of the site. The site is redefined not represented"

Peter Latz:

“...Polaroids of pumps, pipes, gangways in Passaic, NJ” an industrial town referring to them as “archaeological artifacts "