

Case Study

Derek Lovejoy Partnership



“Without AutoCAD we could never have done it.”

Angus Robertson, Director, Derek Lovejoy Partnership.

It's the spaces in between that really matter...

Architecture has a major impact on all our lives, whether in the workplace, in our homes, when shopping and even when on holiday. But have you ever stopped to consider the space between the architecture? Think of the magical setting of Disneyland Paris, or the parkland setting of the Sun Life Assurance headquarters near Bristol, or the mixed public and private setting of Canary Riverside and think of one company..... Derek Lovejoy Partnership. Aply led by Martin Kelly the current Managing Director, this 45-year-old organisation has carved out an enviable international reputation for creativity, imagination and quality in all aspects of land planning and design. With over 50 professionally qualified staff in offices in London, Birmingham and Edinburgh and with over 40% of its work overseas, the Derek Lovejoy Partnership (DLP) is one of the world's top five in it's field. Thanks to the work of DLP, developers now place as much emphasis on landscape architecture as building architecture, on the spaces in between, making life so much better for those who experience those spaces. What follows is the story of how DLP has used an Autodesk design solution to power its success.

New markets, new technology.

The economic recession of the late 80s caused a number of established UK landscape architects to re-focus. Since DLP was not about to oversee the break-up of a team built up over many years it chose to focus on the growing international leisure, hotel and resort sector. The challenge for DLP was how to win commissions in this sector in a timely and cost-effective way whilst maintaining a reputation for creativity and high quality. Initially, the aim was to increase productivity without sacrificing quality. Subsequently, the response was to find new and exciting ways of creating and visualising design concepts for the client and public but without the cost, time, space and modification constraints of producing a complete physical model. Computer technology held great promise. However, in the late 80s most design systems ran on proprietary hardware and software. The resultant lifetime costs put this approach out of the reach of most practices. A return

on the high level of investment needed in people and systems was far from guaranteed. In any case, the functionality of such systems was more appropriate to the production of architectural drawings than to the design of open spaces. Their use to create and convey the visual concepts of landscape architecture was in its infancy. Nevertheless, the practice was convinced that this approach would help them achieve their objectives. In 1989 the first copy of PC-based AutoCAD was installed, an action that has been more than justified by subsequent events.

Could not have done it without AutoCAD.

The impact was immediate. In 1989 DLP won a break-through commission at The Magic Kingdom, Disneyland Paris. From a master plan created by Disney Imagineering, DLP had to conceive and implement a landscape in northern France that would create the illusion of climates ranging from jungle to desert. As Angus Robertson, the director jointly responsible for the project with David Blackwood Murray recalls, “Without AutoCAD we could never have done it.” In fact, 120 A0-sized planting plans were produced in just 6 weeks, a level of productivity not previously thought possible. That was over 12 years ago.

That was then, this is now.

Since then the CAD system has developed from a simple but effective replacement for the drawing board to become a complete solution and major factor in the success of DLP. Now, the Autodesk solution comprises 26 seats of AutoCAD together with 3D Studio Max, Viz and Land Development Desktop. As you would expect, 3D Studio is used very much at the client interface. Land Development Desktop is used for ground modelling, sections and volumetrics, whilst AutoCAD is used to create the project documentation and working drawings that are used to transform DLP's designs into reality.

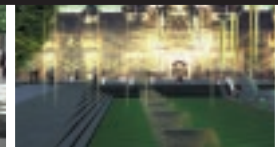
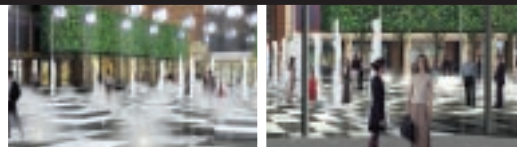
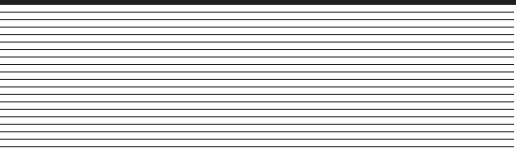
It's the difference between winning and losing.

What has been the biggest recent contribution that the Autodesk solution has made? Mark Martin, Practice I.T. Manager at DLP believes visualisation capabilities and in particular the ability to look at a landscape not only in three dimensions but four (time) has



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immense potential. In landscape architecture, visualisations were originally the artist's preserve, creating static 2D images using pencil and brush. The initial sketches were open to artistic interpretation that made their accuracy questionable. Although acceptable 10 years ago the public and clients are increasingly less convinced by this traditional approach. The alternative was 3D physical models that were expensive and time consuming to produce and often glossed over detail. However, since the implementation of the Autodesk solution, things have changed. Using 3D Studio Max, Land Development Desktop and AutoCAD, Mark and his team create stunningly realistic and effective static and dynamic visualisations. In this way, clients can see exactly how their projects will appear from all and every angle, day and night, come rain or shine, before committing to expensive and irreversible expenditure on the physical implementation. DLP's visualisation capabilities are now the best in the business. Mark records that "on a typical multi-million pound project you may only have 10 minutes to present your design concept to the key decision makers. You will also have to convince them that the proposals can be built. A high-quality dynamic visualisation can make the difference between confusion and clarity, winning and losing. And we win. The Coventry project is an excellent example."

Coventry City Squares.

No, not the name of a Dixieland jazz band, but the name of an International Design Competition won by DLP in partnership with Martha Schwartz, Inc. In the 1950's, Coventry had been at the forefront of town planning and modernisation. However, a city



centre that had once been the epitome of good civic design had somewhat declined because of the competition for shoppers from more recent out-of-town retail developments. To remedy this the council initiated the competition for designs to enhance the Council House Square and Broadgate Square areas to attract shoppers back and raise the city's profile through recreating a sense of place. Thanks to the creativity of its project team, DLP won the day against five other short-listed participants. Autodesk systems then became a critical part of the process in detailing and testing the design. How did the team convince the selection board that the ambitious design intent could be realised? Mark takes up the story: "By using our Autodesk solution, we were able to create a complete and dynamic 3D representation of our ideas. We showed the way in which formal tree arrangements would soften and mask the sharp transition from shop front to shop roof. We showed the fountains broke up the featureless expanse of the square and how the dynamic lighting effects would add life to the area after dark. We showed how the better distribution of increased lighting would remove many of the darker zones making them less intimidating at night." Vehicle movements were realistically simulated and the effects of the moving water features were easily seen. In this way the selection board were able to see the whole proposal unfold, appearing exactly as it would in real life. Moreover, if changes were needed, they could be made without having to start again at the beginning. In Mark's opinion, none of this would have been possible without the Autodesk solution: "The presentation would have been flat. Just plans and perspectives with no life in them. The scheme would not have gone ahead because no one would have had the confidence to commit to the scheme."

DLP wins the day in the Nandi Hills.

Another example of how the Autodesk solution has contributed to the success of DLP comes from Bangalore. The Garden City of India is the location of choice for many hi-tech companies. Just 60 kilometres to the north lies the resort of Nandi Hills, the chosen location for a prestige residential development. With Seth Stein as architect, an innovative design was assured. These were the constraints: no one house could overlook another; complete visual privacy was mandatory; each property had to have a view of the hills. In effect, each house on this

15 unit development had to appear to its resident as if it were the only property on the site. How could this be achieved, and how could it be proved? That is where DLP and their Autodesk solution came in. DLP created the landscape with mounding and cut and fill until the design criteria had been met. Then a series of dynamic visualisations were created, integrating the house designs with the landscape design. These walk-throughs showed exactly what would be visible to occupants as they approached the development, as they approached each property and then as they entered and moved around each individual house. In this way, prospective purchasers would be re-assured that the design criteria had been met. But would this virtual reality be convincing enough? Judging from the reaction to the press coverage the development received, it certainly was. A specially-prepared video including the walk-through was sent to each of the 400 people who responded to the coverage the development received in the Financial Times, The Guardian and the Times. That in turn generated some 100 serious enquiries. The result is that the development is now sold out, under way and the first residents have already moved in.

DLP has the competitive edge.

In providing DLP with a powerful way of communicating concepts and designs and translating them into the working drawings needed to create the physical reality, the Autodesk solution has made a positive and measurable contribution to the company's success. For in addition to enhancing the company's competitive edge, the Autodesk solution generates direct annual revenue in excess of £ 2 million. Other organisations can produce animations. There are other landscape architects. However, DLP believes that only they have the creativity and investment in technology to integrate the two. Their success tells you that they are right.

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