a passion of his distinguished journalist father. It is not difficult to imagine the pleasure wilderness spaces brought to a former long-time prisoner of war. His regular companions on such forays came to value the opportunities they brought for stimulating discussions on many subjects of import. He was an excellent shot and could hold his own with an armourer on the subject of sporting rifles.

Pat raised a family in Rotorua and his third son, Alan, is a household name.

Pat's love and respect for literature and language, with his father's before him, has created a legacy which has furthered a strong family contribution to New Zealand social history.

And Pat himself played a notable part in the history of research in New Zealand.

Des O'Leary

NEW INFORMATION

Research helps to resolve high-country controversy

Researchers from Lincoln University and the New Zealand Forest Research Institute (NZFRI) have developed new techniques for demonstrating the visual impact of forestry in the South Island high country.

Funded by the Foundation for Research, Science and Technology, as part of a programme to determine the impacts of possible scenarios of land-use change in the South Island high country, researchers have aimed to generate visually authentic images of the various scenarios with low-cost computing equipment.

Visualisation is a rapidly growing tool in landscape architecture and the Resource Management Act has increased the demand for accurate and cost-effective techniques. The images are being used to investigate the attitudes of stakeholders towards the effects of different land-use options involving exotic forestry.

The research draws on the NZFRI research into forestry in the high country, geographic information systems, resource forestry and forest economics. Lincoln University contributes expertise in computer visualisation, landscape architecture and rural sociology.

Lincoln's head of Landscape Architecture, Simon Swaffield, says the images enable researchers to present assessments of visual impact which are accurate and defensible. The images have enabled researchers to identify preferences for specific landscape scenarios. Groups surveyed to date include runholders, conservation groups, rural businesses, tangata whenua and local government.

The site chosen for the scenario visualisation is on the western shore of Lake Pukaki. It is currently almost entirely unimproved tussock grassland, with a limited area of improved grazing. The five scenarios modelled were all based upon extensive land uses involving forestry and grazing. All were modelled as they would appear in 50 years' time.

"The techniques that have been developed help us understand better the basis for conflict over the use of exotic species in areas such as the Mackenzie and Waitaki basins," Dr Swaffield said.

"The detail which we are able to show people is enormous. They can see pictures of trees of the exact species, size and condition and in the right perspective on the landscape."

The research began by developing a series of two dimensional "cut and paste" images using a widely used computer program, Adobe Photoshop, that showed different land-use options. In the first stage of the survey, undertaken in 1993, respondents were provided with a limited amount of additional information relating to economic, social and ecological effects and asked to rank the options in order of preference.

The second stage of the research, undertaken by Dr John Fairweather of the Agribusiness Economics Research Unit, identified themes in the responses and the researchers used the information to develop more detailed three-dimensional images of five distinctly different scenarios preferred by different stakeholders.

The regional economic and social effects of these five scenarios were then modelled in detail, and this information was presented to stakeholders. This enabled researchers to interpret the factors that affect people's preferences and attitudes, and the conflicts that they can create.

Dr Swaffield said previous approaches to visualisation of forestry options in the Mackenzie had used manual illustrations which required people to make an interpretation of highly subjective images of proposed land-use scenarios.

"While there is still more work to be done to improve the authenticity of the images, with this technique people are able to make a judgement on a scenario such as extensive plantations with confidence that what they are seeing is pretty close to what it will actually look like.

"The response from high-country stakeholders has been very positive. We believe it offers a major step forward in understanding and addressing conflict over high-country land use."

Forestry's contribution to New Zealand's GDP

FRI has launched a new research programme to quantify the New Zealand forestry sector's contribution to GDP. The output of this research will be able to be used to develop and promote the planted forest sector's contribution to the economy.

The research (funded by the Foundation for Research Science and Technology) is being carried out by a trio of FRI scientists – David Evison, Bruce Glass and Bruce Manley – and Hugh Bigsby at Lincoln University. It will be completed by June 1997. The first phase of the project is the development of a model for the analysis.

Programme manager David Evison says the team essentially needs to add economic data to the FRI/Ministry of Forestry's national supply model. "We are seeking the assistance of NZFOA members in collecting the necessary economic data.

"Broadly speaking, we require indicative costs for the regime categories and the wood supply regions described in the