

Robert L. Barclay has contributed to an international project to address both the conservation of stringed instruments and their bows and of pernambuco, an endangered wood essential to their preservation and repair.

Interdependent conservation: stringed instruments, craft traditions and pernambuco wood



Map of the region in Brazil where pernambuco grows

The word “conservation” means something to both ecologists and luthiers, though perhaps not quite the same thing. But the interests of ecologists and luthiers are aligned when it comes to pernambuco, a wood used for centuries for fine violin bows but now endangered. Over the past seven years, the Canadian chapter of an international foundation has been seeking to address the future condition of stringed instruments and pernambuco by fostering an unprecedented cooperation between organologists, conservators, curators, and the traditionally secretive world of violin- and bow-makers.

The results of this project, a publication titled *The Conservation, Restoration, and Repair of Stringed Instruments and Their Bows*, has two lofty ambitions. It seeks to assist in the conservation of both a natural resource and an intellectual resource: the source of wood in its native forests, and likewise the products of the violin- and bow-makers’ crafts. Pernambuco, or pau-brasil, (*Caesalpinia echinata*) has been the favored wood for making violin bows since the French bow-maker François Xavier Tourte popularized its use in the eighteenth century. The wood grows in the Mata

Atlântica, an area of Brazil that sweeps around its coast in a dog-leg, from close to the mouth of the Amazon to south of Rio de Janeiro. Due to agricultural incursions, urban development and over-use of the forests, it is estimated that the Mata Atlântica occupies scarcely ten percent of its expanse in pre-Columbian times.

The International Pernambuco Conservation Initiative (IPCI) is a non-profit organization dedicated to the conservation and sustainable use of pernambuco and is directly involved in research and reforestation projects in Brazil. Within the umbrella of the IPCI, IPCI-Canada has devoted itself to the other end of the equation: the documentation and dissemination of best practices in the use of the resource and the conservation of its products. While the forthcoming three-volume publication will provide instrument- and bow-makers with the most comprehensive theoretical and practical source of conservation-minded techniques available, its sale is also a major fundraising initiative that aims to raise \$400,000 in support of the IPCI’s broader research, reforestation, and educational activities.

In addition, the IPCI-Canada initiative constitutes, in and

of itself, an innovative research project in the documentation and conservation of manual crafts. It has been a tradition of many crafts from time immemorial that manual practices are passed down orally and by example, and that little is consigned to any permanent documentary record. With the thrust of conservation in past decades, and the emphasis upon documentation of both findings and practices, it becomes more important for practitioners to share their wisdom in a more liberal way. The makers of violins and bows, and restorers and custodians of their work, have risen to this challenge, and the many papers of workshop techniques, recipes and approaches presented here are probably unrivalled in any other discipline. The artisans have cooperated in a most altruistic and unselfish way in laying out for all to see the long-earned secrets of their craft. Of particular interest in this category are the papers that present alternative approaches to resolving difficult problems, showing, for instance, how the same repair can be made using traditional hand tools or new machine techniques.

In raising funds for the conservation of a natural raw material, the producers have fostered an almost unique dialogue between artisans, conservators, scientists and scholars

The IPCI-Canada project, with its emphasis on the descriptions of manual practice, brings the practices of the workbench into the realm of consistent, shared information. This is unusual in a conservation publication, where the emphasis is more often upon the materials of fabrication and their preservation. Here a continuing tradition of renewal, maintenance and intervention is documented, showing how fragile wooden artifacts made of thin, reactive material under constant tension may be preserved for posterity yet still used and enjoyed in the present.

Because this project breaks new ground in its approach to the documentation of the manual craft traditions within a conservation context, it is important to dwell in some detail on the process. Two-hundred and fifty proposals for articles were received from craftspeople and scholars from throughout the world. After a thorough peer review exercise, an editorial board was formed, consisting of eight experts on instruments and eight experts on bows. The editorial board identified areas that were under-represented, and arranged the commissioning of articles to fill in the perceived gaps. The result was a collection of 140 articles by an international roster of 120 prominent contributors. The resulting consistency and uniformity of approach and terminology make this book a groundbreaking work in the field. All conventions, rote preparations, and unconscious manipulations were made fully explicit and broken down into precise steps; all required tools and materials were itemized and quantified. Numerous photographs and more

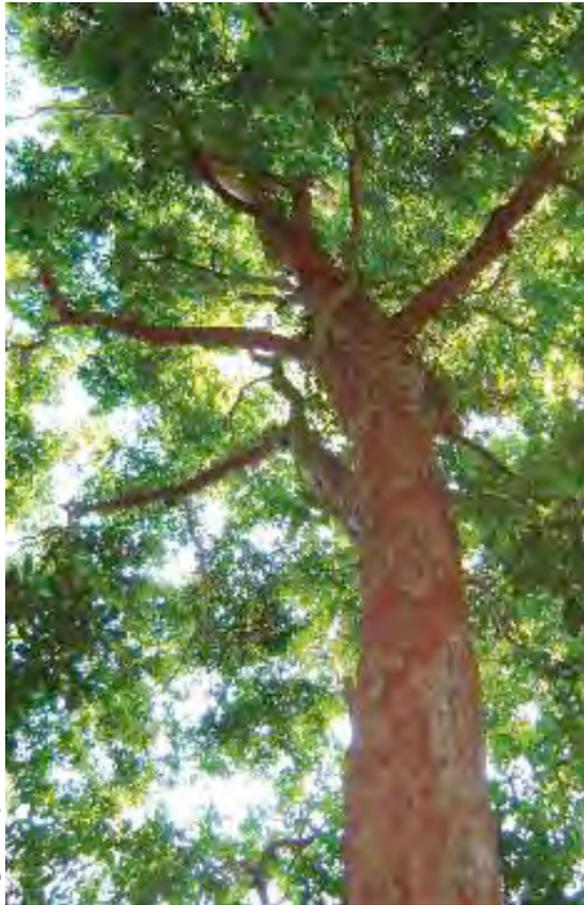


Image courtesy of IPCI-Canada

The pernambuco tree

than 150 original drawings document conservation procedures.

The research on documentation and terminology addresses a key area that hopes to make the project valuable for many years to come. As conservation professionals will appreciate, the lack of a consistent descriptive and diagrammatic approach is by no means unique to this field; the recent huge expansion in our ability to share information across national borders – largely due to the internet and electronic publication – has highlighted the many inconsistent, regionalized and local approaches. The effort to normalize terminology, methods of measurement and descriptions of findings has been a preoccupation of many fields in conservation, restoration and the arts and crafts for a considerable time, and as the level of communication increases a conclusion to these endeavors becomes ever more urgent. The editors of *The Conservation, Restoration, and Repair of Stringed Instruments and Their Bows* have made it a priority to address the inconsistencies in approach in the string instrument world, and to produce a consistent set of standardized forms and diagrams. This is an enormous task, and it has been undertaken with a clarity and economy that will serve as a model to many other disciplines who are struggling with the same issues.

The first set of schemas, developed by Tom Wilder, describes the parts of the violin (and by extension the viola, cello and bass, whose parts are comparable). Ten explicit diagrams detail the terminology, including the orientation, views from all sides, the interior, and all small details. A second set of schemas, also by Tom Wilder, describes the violin bow; nine diagrams provide a wealth of detail on salient features. In a third paper, Hans Rudolph Hösli and Mark Soubeyran provide a documentation checklist and twenty schemas of the violin to guide the measurement of

Label in the interior of a violin



Image courtesy of IPCI-Canada

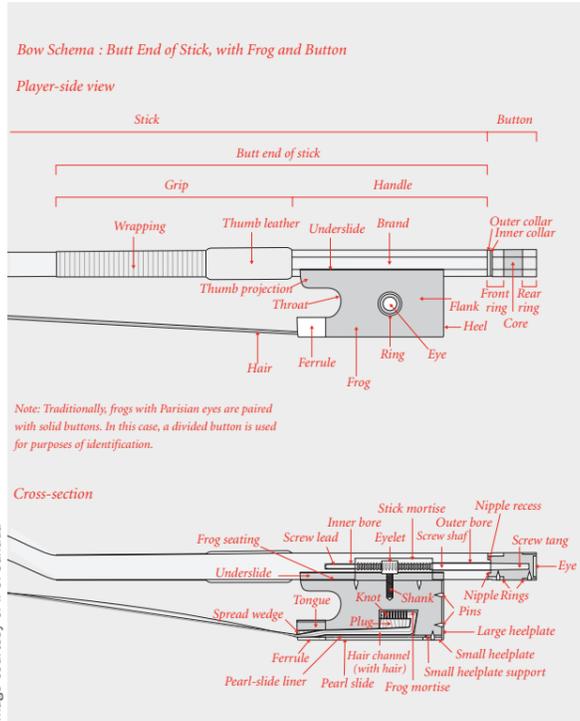


Image courtesy of IPCI-Canada

Schema of the violin bow, developed by Tom Wilder

such subtle features as scrolls, f-holes, purflings, and the multitude of interior details. A fourth article, by Paul Siefried, does the same for the bow.

The International Pernambuco Conservation Initiative (IPCI) is a non-profit organization dedicated to the conservation and sustainable use of pernambuco and is directly involved in research and reforestation projects in Brazil

There is no more idiosyncratic terminology than that traditionally associated with patinas, or the esthetic aspects of surfaces. The standardized descriptive approach taken here will interest conservators and restorers who deal with fine arts, furniture and decorative objects, as many of the finishing techniques and materials of the violin-maker are shared by other crafts. Florence Gétreau's article, "Linking



IPCI-Canada and J&A Beare Ltd

Varnish texture on a Stradivari scroll

Cut timber showing the pernambuco tree heartwood



Image courtesy of IPCI-Canada



Image courtesy of IPCI-Canada

Patina on a violin

Collection History and Conservation History," includes quotes from the servicers and maintainers of past centuries. *Sieur Bâton*, an eighteenth-century conservator of a hurdy-gurdy, remarked: "I know that in general the venerable grime of age often increases the price of a medal or a monument which would be of little value if it were well cleaned." *Plus ça change....*

In "Issues in Repair, Restoration and Conservation," Andrew Dipper looks at the history of the craft; his article is lavishly illustrated with details and features of early restoration techniques gleaned from the usually inaccessible insides of instruments, opened for repair and maintenance.

In "Thoughts on Instrument Restoration," Charles Beare examines the writings of the late eighteenth-century Spanish restorer Dom Vincenzo Ascensio and describes his hair-raising techniques. Friedemann Hellwig provides a systematic overview of enquiry into the authenticity of historic musical instruments including workmanship and organological examination, tools marks and other features, and such technical methods as dendrochronology and radio carbon dating.

While on a narrow and undervalued area of conservation, this project provides a wider model for the dissemination of information on many traditional craft practices that are at the present obscure or poorly articulated. It also sets a standard for the way in which practitioners from diverse backgrounds can find a common means of expression. The resulting volumes come into a near-vacuum occupied by only one substantial work: Hans Weisshaar's *Violin Restoration: A Manual for Violin Makers* (Los Angeles: Hans Weisshaar and Margaret Shipman, 1988). No comparable work on the violin bow exists.

In raising funds for the conservation of a natural raw material, the producers have fostered an almost unique dialogue between artisans, conservators, scientists and scholars. The three volumes will be co-published in the spring of 2010 by Archetype Books in London, United Kingdom and IPCI-Canada in Montreal, Canada. Full information on this publication and the International Pernambuco Conservation Initiative is available at: <http://www.ipci-canada.org/>

Author Biography

Robert L. Barclay was conservator and senior conservator at the Canadian Conservation Institute from 1975 to his retirement in 2008. He is a contributor to *The Conservation, Restoration, and Repair of Stringed Instruments and Their Bows*.

