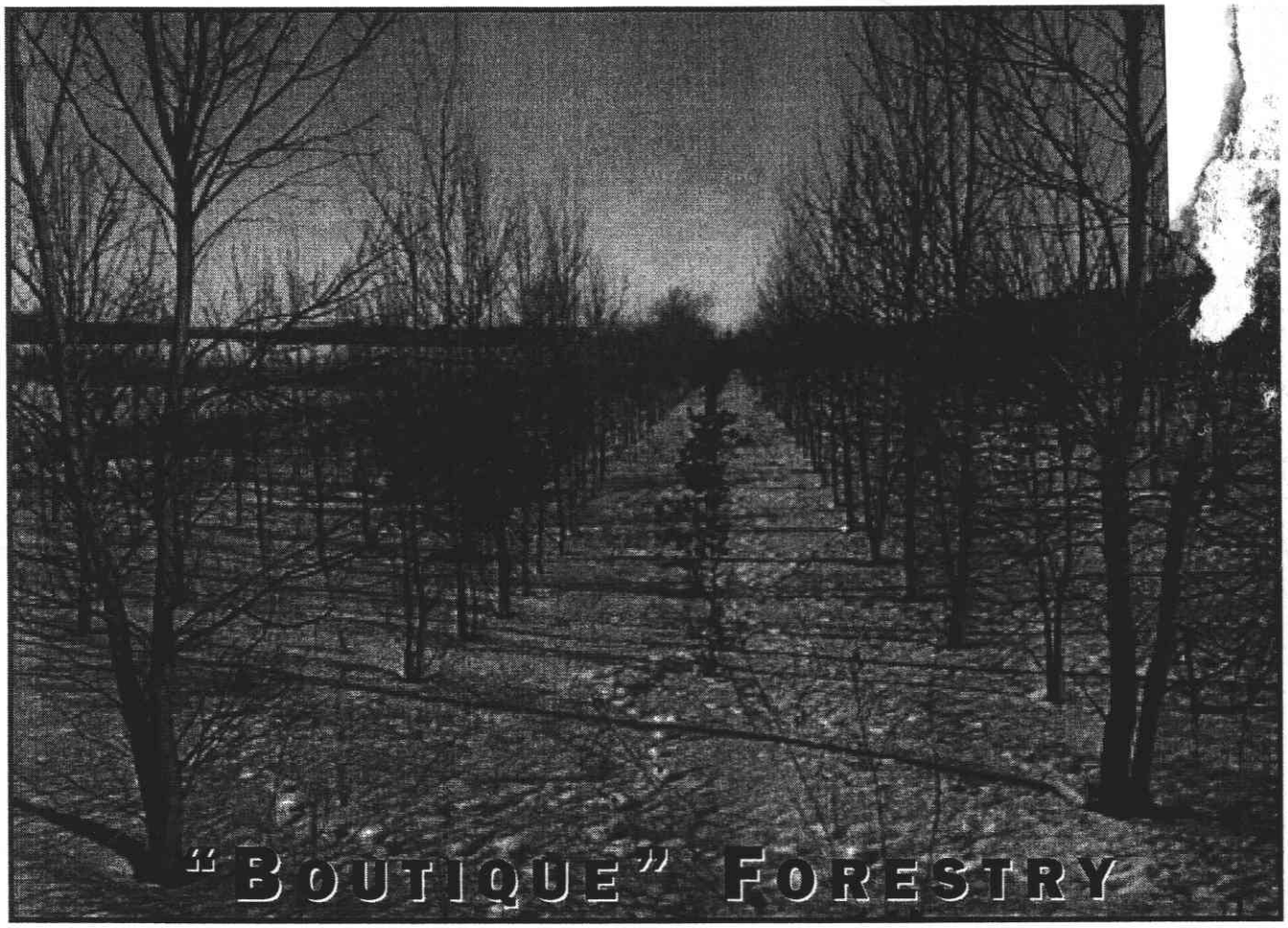


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# New Forest Practices in Urbanizing Landscapes

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ABSTRACT

The owners of small forests are potential clients for professional forestry services and important constituents who can affect the future of forests and forestry. Unfortunately, many owners of small forests are wary of foresters and many foresters are cautious about practicing forestry on small forests. Nonetheless, we find encouraging evidence that a growing number of forestry professionals are forging positive and profitable relationships with these landowners. Interviews with private forestry consultants, forestry organization leaders, and public foresters, as well as with the landowners themselves, reveal opportunities and constraints for working successfully with this new clientele. Among the findings: Boutique forest owners are willing to conduct forest management activities to improve their properties.

**Keywords:** nonindustrial private forestland; private forest landowners

Throughout its history, the US forestry profession has been service-oriented. Foresters advise clients about environmentally sustainable, economically feasible, and socially acceptable management of forests for multiple uses. The rapidly increasing number of new owners of small parcels has the potential to change how forestry is practiced and understood (e.g., Birch 1997; DeCoster 1998; Wear et al. 1999; Egan and Luloff 2000; Best and Wayburn 2001; Macie and Hermansen 2002).

Private forestry consultants are alarmed because consultancy fees are disappearing. Public forestry is alarmed because the tax-paying, voting constituency is or may soon be requesting a different set of services, services which many public forest agencies are not yet equipped to provide. All of forestry is alarmed because fragmentation of ecological systems and timber supply networks may change forests and forestry in unknown and undesirable ways.

An impressive number and variety of these landowners currently exist, including individual homeowners; ab-

***Above:*** **A riparian buffer along Bear Creek in central Iowa.**

sentee owners of small forests; homeowner associations that manage common areas; developers planning conversion harvests; resorts and golf courses; and town forests, reservoirs, greenways, and parks. According to DeCoster (2000), the American Nursery and Landscape Association estimates that American households spend $15 billion or more annually for professional help with their gardens and trees. Yet little of this business goes to foresters.

Several observers have called attention to this expanding market (Campbell and Kittredge 1996; DeCoster 1998; Tyson et al. 1998; Schnepf 2000; Lane 2001; McCary 2002). We use the label "boutique" to connote forestry that is flexible, service-oriented, value-added, and multiproduct. Our purpose is to examine boutique forestry from the perspectives of small and specialty landowners; public and private program providers, such as government agencies and nongovernment organizations targeting these landowners; and private forestry consultants servicing these clients. Our case study looks outward from the Southeast, in particular Virginia—one of many states experiencing population growth, forest fragmentation, and changing forest owner objectives.

## The Study

This article is based on a multimethod study conducted over several years. We began with a survey of small landowners in Virginia and then extended our search to interviews with key informants in the Southeast; eventually we examined boutique forestry practitioners and programs throughout North America.

*Landowner survey.* In 1999, we surveyed people who had recently purchased less than 50 acres of forested land in six fast-growing counties in Virginia, two each from the mountain, plateau, and coastal plain regions (Bedford, Chesterfield, Frederick, Henrico, Montgomery, and Spotsylvania counties). Each county had a high rate of population growth and housing starts, which correlate with fragmentation, and a high percentage of forested land cover. We designed and distributed 2,000 mail-back surveys using standard techniques (questions and item reliabilities were pretested; sample size was gauged to provide reliable estimates given estimated return rates; individual households were randomly selected; and the mailing was followed up first by a postcard and then by a duplicate survey). The response rate was 45 percent, which is slightly higher than for most surveys of private forest landowners.

All respondents had acquired their land within the previous ten years, 80 percent within five years of the survey. Slightly more than half (58 percent) lived on the land year-round, and 13 percent planned to build and live there. Most respondents (74 percent) had not previously owned forested land, and 65 percent owned no other forested land. They were socioeconomically privileged: About half reported an income above $70,000, and 46 percent possessed at least a bachelor's degree. These sociodemographic statistics are comparable to an earlier survey of Virginia landowners (Hodge 1993)

*Interviews.* Federal, state, and local governments and many nongovernment organizations target the owners of small forest acreages. We interviewed leaders of well-known national and state forestry organizations, and asked these informants to recommend other people we should interview. We continued this "snowballing" procedure until we started hearing the same information over and over again. In total, we interviewed eight leaders of national organizations, five leaders of organizations in the South, seven leaders of Virginia organizations, and seven leaders of organizations in the Northeast and Northwest. We interviewed 18 service providers identified as successful practitioners of this type of forestry. We focused our service provider sampling on foresters and loggers, but some informants were arborists, horticulturalists, landscapers, wildlife biologists, and general environmental consultants.

We used structured interview guides designed to elicit understandings and expectations about the subject. Interviews lasted from 15 minutes to two hours. We also conducted a "member check" (i.e., several of those interviewed were asked to review our findings), and all these informants confirmed our interpretations. These methods follow standard protocols of qualitative data collection and analysis as reviewed in Potter and Wetherell (1987).

## The Findings

*Priorities and motivations of landowners.* Generating profit is not a primary interest for most people who purchase small forests. Using a seven-point scale (–3 is not important, 0 is neutral, and +3 is very important), Virginia respondents said it was not important that their forests generated a major source of their income (–1.7), generated supplemental income (–1.6), or helped pay for special expenses like college education (–1.2). More important motivations for ownership were preserving nature (1.2), building one's own house (1.4), watching things grow (1.4), living simply (1.5), escaping the rat race of civilization (1.6), living in a healthy place (1.8), walking on their land (1.9), seeing wildlife (2.0), enjoying the scenery (2.1), and having privacy (2.3).

These findings echo other surveys of landowners (Birch 1997; Jacobs 1997; Tyson et al. 1998; Erickson et al. 2001) and were confirmed in interviews. Service providers told us they primarily "sell aesthetics." Program providers said that profit was a lower priority for this type of landowner and noted that some landowners plant hardwoods for fall color or wildlife habitat even though they would be "better off financially" if they planted pines or sold their land. Even landowners who seek income are less interested in maximizing the rate of return and more interested in balancing income with other forest amenities.

*Landowners' interest in forestry.* Many new landowners are not preservationists intent on minimizing human intervention; rather, they are willing to engage in forest management to change the conditions of their properties *(table 1, p. 16).* This is our most interesting finding: Boutique forest landowners may own land primarily for amenity reasons but are not opposed to harvest-

**Table 1. Landowners' proclivity toward management.**

| Management activity | Already do | Might do | Probably will not do |
|---|---|---|---|
| Grow small plots of specialized crops (e.g., fruits or vegetables) that can be sold locally for a profit | 8.6% | 33.7% | 57.7% |
| Plant high-value trees for future sale as timber | 8.3 | 35.4 | 56.3 |
| Graze livestock | 22.4 | 24.8 | 52.8 |
| Prune or cut down selected trees to improve timber value | 13.5 | 35.3 | 51.2 |
| Develop a written management plan for my land | 7.9 | 47.0 | 45.1 |
| Use herbicides or pesticides to control weeds and insects | 33.2 | 38.4 | 28.3 |
| Prune or cut down selected trees to improve scenic views | 30.2 | 42.1 | 27.7 |
| Kill vines growing in trees | 29.8 | 43.2 | 27.0 |
| Plant vegetation to provide privacy from neighbors and roads | 27.3 | 47.4 | 25.3 |
| Prune or cut down selected trees to improve forest health | 23.8 | 56.3 | 19.9 |
| Have my soil tested | 29.2 | 58.6 | 12.2 |
| Improve wildlife habitat | 46.0 | 43.5 | 10.6 |
| Regularly inspect the condition of my land | 73.6 | 22.5 | 3.9 |

*NOTES: Management activities are arranged according to the percentage of landowners who would not practice them. The number of respondents who answered each question ranged from 720 to 734.*

ing timber for wildlife management, aesthetic improvements, or generating income. For example, most landowners were favorably disposed to management activities that improved wildlife habitat (89 percent), improved forest health (80 percent), increased privacy (75 percent), killed vines in trees (73 percent), improved scenic views (72 percent), and controlled pests (72 percent), even if doing so involved pruning or removing trees and applying pesticides. Consistent with their disinterest in solely economic outcomes, landowners said they were less likely to manage specifically for timber, graze livestock, or plant income-generating nontimber crops.

Unfortunately, these landowners don't entirely trust foresters *(table 2).* Barely a majority (54 percent) agreed that foresters were a trusted source of knowledge about managing trees. Perhaps even more alarming, approximately three quarters were either neutral or outright skeptical about foresters' ethics: They believed that foresters were more interested in money and timber than in ecological health. We should note that most of these new landowners admitted knowing little about professional foresters. Nevertheless, these results are alarming because they suggest that this affluent, educated, and politically important constituency may not support the environmental policies and practices espoused by professional forestry, and because forestry consultants initiating business relationships with this clientele will struggle to establish credibility.

If foresters can win their trust, these forest owners might value and implement the advice of forestry consultants. The last two questions reported in *table 2* bear directly on this point. If other forest qualities would be protected, nearly half of respondents (49 percent) favored harvesting timber from their lands, another 35 percent were neutral or undecided, and only 16 percent were opposed. Furthermore, most of our respondents would consider harvesting and processing trees using "small" forestry operations and technologies (e.g., portable sawmills). It appears that these new landowners are willing to be part of a timber economy as long as their ecological and amenity priorities are respected.

Those findings are significant. They suggest that these lands could provide a steady supply of timber, forestry consultants could find paying work, and eventually, a political constituency supportive of forestry might emerge. The difficulty is convincing landowners that forestry can be practiced in a manner that enhances amenity and ecological qualities.

*Image.* First impressions matter to new landowners who have little exposure to forestry. Several consultants said they avoided the "stereotypical" image of "boots, flannel shirt, muddy jeans, and beat-up pickup truck." They also managed their crews' appearance and behavior, even teaching crew members how to talk with clients. Several consultants mentioned the importance of having "nice-looking trucks" and managing a neat and tidy site to communicate a professional ethic.

When talking with clients, some service providers avoid certain words, at least at first, because of their negative connotations: They speak of "removal" instead of "harvest" and "opening up" the forest to "let sun in" rather than "clearcut." They mention "ecosystems," "conservation," and "viewsheds." Consultants need to make it clear that they care about "what the woods look like" before, during, and after the job. One consultant said he did not use slang and was careful with his accent.

Several consultants said that documentation of professional credentials was important to landowners uncertain about evaluating the quality of forestry advice. These consultants draw attention to their formal education and participation in Master Logger and Sustainable Forestry Initiative training.

**Table 2. Landowners' understanding of forestry and willingness to harvest.**

| Statement | Agree | Neutral | Disagree |
|---|---|---|---|
| Professional foresters are a trusted source of knowledge about how to manage the trees on my land | 54% | 38% | 8% |
| Professional foresters are more interested in making money than in the ecological health of my land | 31 | 46 | 23 |
| Professional foresters are more interested in cutting timber than in the ecological health of my land | 30 | 45 | 25 |
| I don't know anything about professional foresters | 40 | 36 | 24 |
| I would be willing to harvest a few trees and saw them up for lumber using a small, portable sawmill | 42 | 25 | 33 |
| I would be willing to accept less money from a timber sale if the logging actions protected other forest qualities | 49 | 35 | 16 |

*NOTE: The number of respondents who answered each question ranged from 720 to 734.*

One consultant told us that pacing, compass, chain, and hand-drawn maps were "Mickey Mouse" today and, used alone, might degrade the consulting forester's credibility; geographic information and global positioning systems were more impressive.

*Advertising.* Two excerpts from consultants' promotional materials illustrate how boutique landowners are being targeted:

> Other timber companies care what the logs look like when they come out of the woods. [Our company] cares what the woods look like when the logs come out of them.
>
> [We] help you manage your woods for the long term, while realizing income growth and the continued beauty of your woods.

Accessing these landowners remains a mystery. Several consultants had tried Web pages, flyers, and cold calls but achieved little success. Most new jobs arrive by referral. Several consultants gave presentations at community meetings and to local environmental organizations advertised in the newsletters of these organizations, offered short courses, or distributed their own newsletters. Some Web-savvy clients used state forestry department websites that list forestry consultants. Arborists and landscape contractors had more success than foresters, but no one we talked with had discovered the key to reaching these clients.

*Special skills.* Boutique forests have special qualities, and thus service providers need special skills. For example, harvesting must satisfy aesthetic as well as ecological and economic concerns. Consultants said that when marking a stand, they thought about creating shade, opening vistas, maximizing screening for privacy, and leaving aesthetic trees to benefit future house sites. High aesthetic value was said to result from creating a "natural appearance" or the appearance that "nothing happened," chipping or compacting slash, and replanting trees in "crooked" rather than straight rows. Roads, skid trails, and loading decks can be reseeded or covered with leaves and branches or used to create a recreation trail network or meadows. Several consultants leave trees of high economic value to maximize aesthetics or other amenities. Their tips for aesthetic harvesting were consistent with published advice (see *Journal of Forestry* 93(2), February 1995).

Consultants displayed cues-to-care—visual indicators of sincere and responsible stewardship (Nassauer 1992), such as posting signs that "explain management actions," minimizing mud on roads, removing all litter, and maintaining "neat" site conditions. New forest owners may feel unqualified to interpret ecological conditions and instead evaluate foresters' professionalism through such cues, assuming that high concern translates to high environmental quality.

Consultants considered it important to minimize the time and disruption on site; they scheduled noisy activities accordingly. A manager of public lands arranged the size, location, and timing of vegetation manipulations so that community members experienced minimal disruption: "People don't want to hear chainsaws in their parks" at least "not more than for a day or two." He encouraged a "seven-hour work day" and a daily cleanup each day so that people could walk their dogs after work.

Also necessary are the "people skills" that help consultants work effectively with diverse stakeholders. "Patience," "versatility," and "public relations" skills were mentioned. One successful consultant advertised his ability to work with landowners and communities. Clients naïve about forestry practices need a clear "image of what will happen during the removal process." Preharvest meetings about which trees will be felled (sometimes even the direction of felling), what will be left behind, what equipment will be used, and where it will enter the site can avert surprises. Several consultants used "special language in the logging contract" to ensure that objectives were clearly stated and an escrow deposit to ensure job satisfaction (see Wilent 2001).

Consultants need to be prepared to offer advice that will help landowners realize unique goals. Some boutique forest owners desire longer rotations (i.e., saw- and veneer-quality logs) that provide aesthetic and wildlife benefits to current generations and profits for future generations. Other landowners

desire hazard tree identification and removal; wildlife habitat analysis; minimizing of noxious flora and fauna (e.g., deer); endangered species surveys and management; wetland delineation, permitting, restoration, and management; recreation trail inventory, management, and creation (via logging roads and skid trails); and reforestation.

*Constraints.* Numerous constraints to management of boutique forests were identified. One of the more intractable is the norm for payment—typically, a percentage of value or volume of timber harvested. Fee structures tied to the value of timber make consulting on small tracts unprofitable.

This said, almost everyone we spoke with recognizes that tract size is not the primary issue in determining whether profit can be made from harvesting; rather, it is the value and volume of wood on the land. Most service providers had examples of someone making thousands of dollars from one to five acres of quality saw or veneer logs.

Some consultants used a "sliding scale" that varied with tract size, charging more per acre on small lots or taking a higher percentage of the gross. Others recommended severing the link between fees and timber sales. Possible fee structures included charging a minimum service fee, billing for hours or days of work, or taking a percentage of each job subcontracted to a service provider. The current fee structure seems based on the traditional forest owner, but "timber rich and cash poor" may not be accurate here, since "timber is secondary" on boutique properties. Perhaps boutique forest service providers can learn from arboriculture and lawn and garden industries, whose fee structures are based on services rendered.

Another constraint is the proliferation of logging regulations and ordinances. Some ordinances discourage forest management on small forested acreages by requiring costly management actions, such as intensive vegetation surveys or detailed management plans. Regulations that require buffers along all boundaries place a disproportionate burden on small lots, which have a higher ratio of boundary to acreage. Consultants identified specific counties where they would not work because of restrictions or required public hearings for silvicultural actions. Even some government programs that seek to protect agricultural and forested land (e.g., lower tax rates and cost sharing for forest management) may have the opposite effect in a fragmenting landscape if minimum acreage limits exclude small lots from being considered a forest. Some forest landowners' associations and government-sponsored forest stewardship programs also had minimum acreage requirements that made small lots ineligible for membership or incentives.

Availability and mobilization of equipment suitable for small tracts create additional constraints. Some loggers have designed and built their own equipment for these purposes. "Scandinavian" equipment is increasingly available, but small self-loading trucks are needed. Still, loggers prefer jobs that involve staying in one location for an extended period and try to avoid transporting partial loads of logs to a mill. Loggers' associations might be able to help in this effort (Egan 2002).

A related constraint is the paucity of service providers. Several foresters said it was difficult to find reputable loggers and planters who would work on small parcels. The trend in the US forest industry is consolidation, with operations integrated vertically as well as horizontally to realize economies of scale. Mills and wood-processing facilities often move out of urbanizing areas in search of a steady, high-volume supply of raw materials. The processors that remain have quotas for how much and what kinds of wood they will process, making it difficult to sell timber in urbanizing areas. But some consultants described a thriving forest products industry near rapidly expanding urban areas (e.g., Lane 2001; McCary 2002).

Finally, and perhaps most significant, is a self-imposed and self-fulfilling constraint. Forestry consultants often contend that boutique clients do not exist or cannot generate sufficient profit. Several program providers we interviewed described a "bias" among some forestry professionals reflecting the timber orientation of forestry. Because economic return from timber is likely to be lower on these properties, some outreach programs and scientists ignore them. One critic of this bias said it is "not our job to tell [boutique forest owners] they can't make enough money" from timber; rather, forestry professionals should provide information about management possibilities, profits, and costs and let the landowners decide what profit margins (if any) are acceptable.

*Coordination.* Some forestry consultants "lump together" operations on several nearby small stands to minimize the difficulty and expense of moving equipment and labor. A consultant with enough clients can coordinate loggers and planters "to work in the same general area and move sequentially through a landscape." Some service and program providers are promoting formal cooperatives in which owners band together to realize economies of scale. For example, some state chapters of the National Woodland Owners Association help proximate landowners form cooperatives that share professional advice as well as economies of scale from harvesting. Historically, however, cooperatives have enticed landowners with economic incentives. Such incentives may not appeal to boutique forest landowners who care more about privacy, controlling access, and beauty than about profit margins.

*Collaboration with other professions.* Boutique forestry exists at the interface among forestry, arboriculture, urban forestry, horticulture, real estate management, and landscaping. We found numerous examples of professionals' crossing boundaries or collaborating with one another to provide boutique forestry services. Some service providers were primarily arborists who occasionally harvested small acreages. Several foresters who specialized in working with residential developers planned harvests that complemented the developer's intentions for the land. Several loggers worked with building contractors to extract timber during conversion harvests. Some loggers had established relationships with arborists: the arborist removed trees near houses,

the logger removed other trees, and the logger then took all the merchantable material to market. We found landscape firms advertising "forestscaping" and "ecological restoration" of small forested areas. We also found evidence of arborists' enrolling in Master Logger or Sustainable Forestry Initiative certification courses because mills require such certification before they purchase logs.

## Conclusion

Boutique landowners and associated service providers are creating a unique segment of forestry, and public and private organizations are responding. For example, Washington State has the Small Forest Landowner Office; Vermont has the Backyard Forest Stewardship Program for owners of 25 acres or less; the Forest Service sponsors the Backyard Woods program and the National Network of Private Forest Landowners; and various states promote FireWise and "defensible space" programs for landowners. "Woodscaping" is a popular activity in New England and is being promoted through extension programs in other regions (e.g., Campbell and Kittredge 1996). And numerous local woodland owners' associations as well as the Forest Landowner Association, National Woodlands Association, and American Forest Foundation already target or would like to reach these landowners.

Enhancing political influence is one reason small forest owners are being targeted. National associations want to bring them "into the fold" because they "have votes" that will give the organizations more "clout" when lobbying for forestry programs. A state forester, fresh from budget battles with his state legislature, explained how changing demographics affect the types of forest programs his department can offer. As representatives from rural counties (where traditional large-scale forestry is practiced) lose power, representatives from urbanizing counties are asking what services his department provides their constituents.

Forest fragmentation threatens desired environmental and community qualities. One association president explained the urgent need to reach landowners in the wildland-urban interface and create a "culture" and an "expectation" about their "obligation" to the "environment," to the "economy," and to the "community." Forest owners need to understand the important roles they and their forests play in creating regional environmental quality and a viable industry and lifestyle for their communities. Organizations also want to educate naive landowners about "lucky" loggers who show up at the forest owner's door to offer money for trees while ignoring best management practices and thereby degrading both forest health and the reputation of forestry.

Because boutique landowners are relatively well-to-do, informed, and politically astute, they provide a golden opportunity for professional forestry. If mistreated or ignored, this constituency can work against forestry, decreasing the profession's social, economic, and political relevance. Their numbers are increasing. These new clients and powerful political constituency could shape forestry well into the next century. The Society of American Foresters and related organizations should nurture them in several ways:

- Advocating policies that allow forestry to be practiced on small landholdings.
- Promoting a culture within forestry supportive of boutique management.
- Promoting a culture among landowners that recognizes the opportunities and responsibilities of forest ownership.
- Encouraging markets for timber products in fragmenting areas.
- Providing technical assistance to professionals who service these clients.

If we do not respond to these opportunities and challenges, some other profession will, and forestry will be further marginalized as a voice in natural resource management.

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