THE TIPPING POINT

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Professional Attention to Tile Installations

ABSTRACT

Looking back at the major technological inventions and breakthroughs that have occurred within the last 15 years, we might wonder whether the pace can be maintained for the next 15. Rest assured, the answer is Yes, to the nth degree.

The ceramic tile industry has introduced: ventilated facades; elevated floors; catalytic glaze formulas; dry-set installation systems; integrated photovoltaic solutions; dimensionally thin ceramic units and comprehensive universal design programs. One of these innovations may provide the industry with the momentum to weather the current economic crisis and tip us over the edge, gaining a new level of acceptance within the architectural, design and consumer communities.

Commitment to innovation requires investment, imagination, vision and most of all patience. The introduction of new technologies can be met with skepticism at first. Most of us would agree that once we have become acclimated to technology, or a new way of thinking, new is not quite so daunting. In fact, one technology and the skills and knowledge acquired make the transition to other technologies easier. The acceptance and learning curve is greatly shortened.

The current economic upheaval creates both opportunities as well as challenges. Many have said this recession differs from other economic shocks, that this is an "economic break" unlike others and one in which global communities will see a paradigm shift in business & industry. The nature of this downtown has also

changed consumers and their behaviors. If the worst is over and world economies are beginning to rebound -what will the new normal look like?

Continuous research and development have opened new horizons and current studies in the sector hold incredible promise for future growth. Is the ceramic tile industry at a decisive Tipping Point? A strategic examination of our strengths; weaknesses; challenges and opportunities can provide the sector with a viable plan of action and the motivation to take the industry to the next level of excellence.

"It was the best of times; it was the worst of times" [1].

1. THE BEST OF TIMES...

I completed my university studies in 1974 at twenty-two years of age and with endless possibilities in front of me I could not wait to launch my career in interior design. The first six years were euphoric. Each new project was more challenging than the previous and my knowledge of various material finishes and technical skills was being shaped and honed daily. Remarkably, in those first few years of on-the-job training, I discovered my preferred signature material. One surface captivated me from the beginning. It had history, variety, color, shape, size, quality and a wholesome personality. Perhaps a strange way to describe a material but there was something innately pure about a product made with simple clay, a finish with such affinity to creativity one only had to imagine artisans forming each piece by hand. Ceramic tile was a material that possessed fragile beauty in its hand-painted glaze combined with a vitality and robust nature that guaranteed it's survival for centuries. Incorporating ceramic tile in projects gave them a unique freshness creating an almost salutary aura in every space.

I had found a material which inspired me. My signature design style was based on simple, clean, interiors that were healthful for my clients and for the environment. During the 80's concern for healthy, sustainable building choices was in its infancy – and fringe at best. Regardless of the limited appreciation then, or its growing importance now, creating healthy, safe and environmentally sustainable interiors has always been a compelling and guiding principle throughout my career. It is also why my admiration and enthusiasm for ceramic tile never wavered and has instead grown into a passion.

Some say passion comes from "living through the moment". I know it is true for me: it is the exhilaration of searching and exploration; it is the thrill of being on the front lines at the moment of discovery & success; and it is learning & adapting to each improvement coming out of the fast paced adventure of a technological evolution. Gazing back over the past three decades I have to wonder out loud if my colleagues and peers in the industry realize what an incredible phase of innovation has unfolded before our eyes in such a small slice of time - our lifetime. Personally, I am awed when I recount how many technological milestones I've witnessed. Advances that have transformed an ancient artisanal object into an industrial preferred building material for the 21st Century. The continuing promise is realizing every improvement is generated from a previous idea, one innovation leads to the next and each is a potential catalyst for continued growth.

2. GROWTH: 1980-1990

Without these improvements, ceramic tile would not be where it is today. Looking back to tile consumption in the 80's and 90's in the United States of America reveals just how far we've come. During this period there was a distinct style difference in ceramic tile produced for commercial and residential applications. Commercial design professionals sought out programs that were monochromatic, modular, minimalistic in design and classic in shape and format. Manufacturers specializing in commercial tile produced glazed and unglazed programs which reflected these design preferences. Commercial consumption which accounted for only 35% of the market fluctuated greatly depending on the type and use of the building. Projects such as: public swimming pools; shopping centers; airports and healthcare facilities used a significant quantity of ceramics. Institutional and public projects recognized specific benefits of ceramics such as water resistance, slip-resistance and its durable performance in high traffic environments. However, use of ceramic tile for exterior cladding and interior floors in corporate high rise construction was infrequent due to a preference for natural stone. When tile was specified it was for function rather than form and usually not because it was considered a noble, luxurious or even a fashion forward material.

The popular style of residential programs differed greatly and concentrated on designs appropriate for kitchen and bathroom applications. Residential tile accounted for 65% of the market with total USA consumption in 1980 a mere .22 M^2 (2.41 sq. ft.) per person. Residential use was confined to a marginal bathtub surround and an occasional kitchen splash. Higher end homes sporadically used tile for principle bathroom floors and rear entries. Ceramic manufacturers specializing in residential programs applied single screen serigraph or transfer decal decorations on most floor and wall programs. Popular patterns based on flora and fauna; fruit and cooking motifs; geometric and stone-like imitations; and variegated cloud-like, fumé glazes were all utilized.

These overly decorated residential ceramics were routinely disdained by the architectural and commercial design community as was any trendy approach to ceramic design geared to appeal to new home and renovation construction. In fact most ceramic tile targeted to home owners was regarded by design professionals as an over-priced alternative to other competitive floor and wall material. Unfortunately the predominance of ornamental decal infused residential tile only served to diminish the perceived value of other more straight-forward quality ceramic programs.

Overall, North American consumers had little cultural or historic experience with ceramic tile and many architectural and design offices suffered from a lack of knowledge, appreciation or interest in the material. Fortunately, my exposure came from some of the leading commercial ceramic factories of the day and from visiting a wide array of Europe's finest historic installations. Consequently, my impressions of ceramic and appreciation of its characteristics and benefits was never dimmed. In fact, I have always been convinced of the position quality ceramic tile should occupy in the palette of design materials.

3. DECADE 1990-2000

It was the decade of change. By 2000, 77 percent of women ages 25-54 were in the work force. A 35% increase from the late 1950's.[2] Consumer's disposable income increased as single income families became double income families. House size grew year over year. As career responsibility increased, available free time shrank. (Professor Bianchi, of the Census Bureau found that at-work mothers slept 3.6 fewer hours per week than at-home mothers.) "Time had been compressed as far as it would go." Working mothers had little time to dedicate to house work. (From 1965 to 1995 the average time mothers spent doing paid work jumped to almost 26 hours a week from 9 hours. The time spent on housework fell commensurately, to 19 hours from 32.) Adjustments to lifestyle, habitat use and consumer demographics changed rapidly. Environmental concerns were steadily mounting. Demand for sustainable design in the building industry was promoted.

It was a time of change in the ceramic tile industry as well. The combination of annual price reductions made tile more affordable to a wider population. Improved aesthetics led to more fluid, realistic designs and fashion forward sizes & shapes. Changing consumer preferences progressively increased consumption. Ceramic tile was viewed as healthy, hygienic and time saving with easy maintenance. It possessed environmental attributes with its durability and long life cycle. Tile was more broadly accepted by working women as an upscale and even luxurious surface.

Ceramic tile gradually began replacing competitive products in a variety of applications. For the first time in decades soft flooring started ceding market share to hard surface alternatives. Wall tile also made inroads over paint, wallpaper and other competitive products. Tiled shower and tub surrounds expanded to ceiling height and bath & powder room tile more commonly covered all walls to at least wainscot height. Ceramic feature walls began to appear in family rooms, foyers and dining rooms.

Before the end of 1989, consumption had more than doubled to .44 M2 (4.684 sq. ft.). It almost doubled again to .81 M^2 (8.71 sq. ft) by 2006. It was no longer uncommon to see ceramic floors throughout main floor interiors as a replacement for broadloom carpet. Attraction to tile continued when outdoor space was linked to interior rooms. Tile was a natural choice flowing without transition onto patios, decks and balconies. For all the right reasons tile was making a significant breakthrough in both commercial and residential design. While all of these reasons remain valid today the decade of astounding growth abruptly came to an end in the final days of 2006.

Since 2007, sales in dollar value and volume of ceramic tile have been in decline. By the end of 2008 tile consumption in the United States had dropped to just under 1997 levels and are presently stalled at .52 M^2 (5.56 sq. ft.). The decline is primarily due to the precipitous and global crisis affecting the financial sector which has seriously effected the housing market and consumer spending - circumstances which have affected all industries.

Other problems, specific to the ceramic industry, have added to the decline in sales. Rising raw material and energy costs have led to price increases at a time when consumers have less spending power and are already shifting to lower priced products. In fact the retreat away from hard surface "luxury" products to lower cost carpet and resilient has given both these sectors the first gain in floor-covering market share for over a decade.

In the midst of what may be the worst industry recession, other significant changes are creating additional uncertainty. Export leaders of tile into the United States have shifted rapidly in the past two years. Statistics for 2008 record Italy, Mexico and China as the top three countries both in dollar value and consumption with Spain and Brazil rounding out the top five exporting countries. On a volume only basis, Mexico surpassed Italy as the lead exporter to the USA. This historic transfer suggests the appeal lower-priced ceramic tiles have, at least in this economic environment and opens the debate on what direction the product and manufacturers should pursue in the future.

	1980 (M)	1989 (M)	1997 (M)	2006 (M)	2008 (M)
USA Population	226.54	246.82	272.65	298.36	304.06
Consumption SF	2.406	4.684	5.850	8.714	5.558

Table 1. Source: U.S. Department of Commerce.

Given the incredible strides ceramic tile has had over a decade of unprecedented growth and the achievements the industry has accomplished through investments in research and development, a valid question today certainly is - Where do we go now?

For guidance we can consider a number of studies relating to:

- The consumer: how have they been affected by the recession and how will they respond as we move into recovery?
- Business performance: What strategies have proven successful in past recessionary environments?
- Do conditions exist to encourage ceramic research, innovation and discovery?

4. THE CONSUMER

In late February, the head of the European Central Bank said "We live in non-linear times: the classic economic models and theories cannot be applied, and future development cannot be foreseen" [3]. Is this evolution spiraling towards an alternative economic system in which the concept of consumption will be very different from that of today?

At least two different classifications of consumers have evolved:

1. Those who can still afford the consumer society, but are ethically challenged by their relative wealth. They face the ethical dilemmas of being the "haves" surrounded by "have nots."

   Those who are reasonably well-off or materially comfortable, struggle with existing arguments for healthy, more energy-efficient and low carbon lifestyles coupled with a stronger moral dimension of responsibility for global environmental impacts such as climate change.

   They acknowledge or recognize that sustainability and their own future welfare may require wealth redistribution and thus reductions in their own purchasing power. This may be through altruism, philanthropy, or even taxation in order to achieve a closer solidarity with others paying a higher price.

   "There is an anti-bling thing going on" [4]. Increased emphasis on social relationships and community may be seen as advantageous with an emotional gain far greater than any material loss they give up in the transition.

2. Those who are close to or on the brink. They are the millions who have suffered dramatic loss of savings, are at risk of losing their jobs, are underemployed or are already unemployed. They are the American population who will suffer more traumas should recovery be long and drawn out.

   They are too worried about their current position to assume more debt, and those that could purchase find banks unwilling to lend to people they now view as high credit risks.

> Americans may return to pre-industrial era values, spending on what they can afford and learning to enjoy what they are able to purchase. "The process of bringing our wants and our needs into realignment is going to involve years of savings and frugality" [5].

Across the board for all consumers, this recession has changed some attitudes and other have remained unchanged [6].

5. WHAT CHANGED

- There is a stronger emphasis on value.
- Consumers are redefining discretionary versus essential spending.
- Consumers are comparison shopping and trading across categories (Ceramic Tile becomes a carpet or resilient purchase based on lower price).
- Consumers are trading down on brands. Store brands are a viable choice if the retailer is offering brand quality for a better price.
- Consumption away from home is down. This is apparent especially in the restaurant & hospitality sectors. A Big night in replaces a Big night out. Consumers see the home as a safe nesting place. Success will come to manufacturers who understand this shift and seize the opportunity trend.
- At-home continues across other areas such as a shift from spas to home inspired beauty solutions. Consumers are looking for better value.
- Frugality is top-of mind with accumulating savings becoming a top priority. This may be a short or long term shift.

6. WHAT HASN'T CHANGED

- Health & Wellness. It will be less about premium price and more about big innovation. Incremental plays like it's better-for-you, will not put you in this category. Investing in new product development should be an essential part of any suppliers' strategy in counteracting consumers' heavy reliance on price discounts as a key purchase driver. This will be a critical pathway to improve returns and drive real category growth.
- Convenience: Solutions that save time in our busy lives "aren't going to get less important".
- Demographic Trends: The aging population and multi-cultural consumers. These groups of consumers will provide opportunities for companies who understand them best and respond accordingly.
- A marketing focus on the consumer will always win. This is messaging that

is grounded in the experience of the consumers rather than the lofty ideals of the advertiser.

- Social networks will continue to influence and belong in the marketers' playbook. Consumers trust real friends and on-line strangers the most. It is interesting to note that a brand or factory website garnered the same percentage of trust, 70%, as online consumer generated opinions [7].

7. WHAT'S NEXT

The ceramic tile industry can extrapolate several positive and key trends from both lists.

- Residential property will continue to be a key investment and savings vehicle.
- Residential property enhancements will lead to increased savings and value creating in-home solutions for dining, vacations, spa treatments and general lifestyle improvements. Marketing campaigns should be centered on this trend.
- Emphasis should be drawn to the actual low amortized cost of ceramic tile compared to alternate initial low cost, non-durable commodities such as carpet and linoleum.
- Duplicating specific lines with similar Store brands can capture the price conscious consumer without lowering the price or damaging the exclusive nature of leading manufacturer brands.
- Health, wellness and the environmental benefits of ceramic tile must be delivered as a cohesive statement by the industry. Sustainable products will continue to be a key area of growth. Continued investment in research and innovation is paramount. In one survey people ranked being in control of their finances and living a green lifestyle as a better indicator of success than owning luxury items or paying off their mortgage [8]. See Green by Region graphic.
- Convenience, low maintenance and low re-placement frequency have always been key drivers of the sector. More aggressive, creative advertising should link these benefits to low-energy maintenance, less time consuming and lower annual re-finishing requirements and other key time stressors of the home owner.
- If online consumer opinion websites or social networks have not been part of your marketing strategy, add them now. See trust in Advertising graphic.

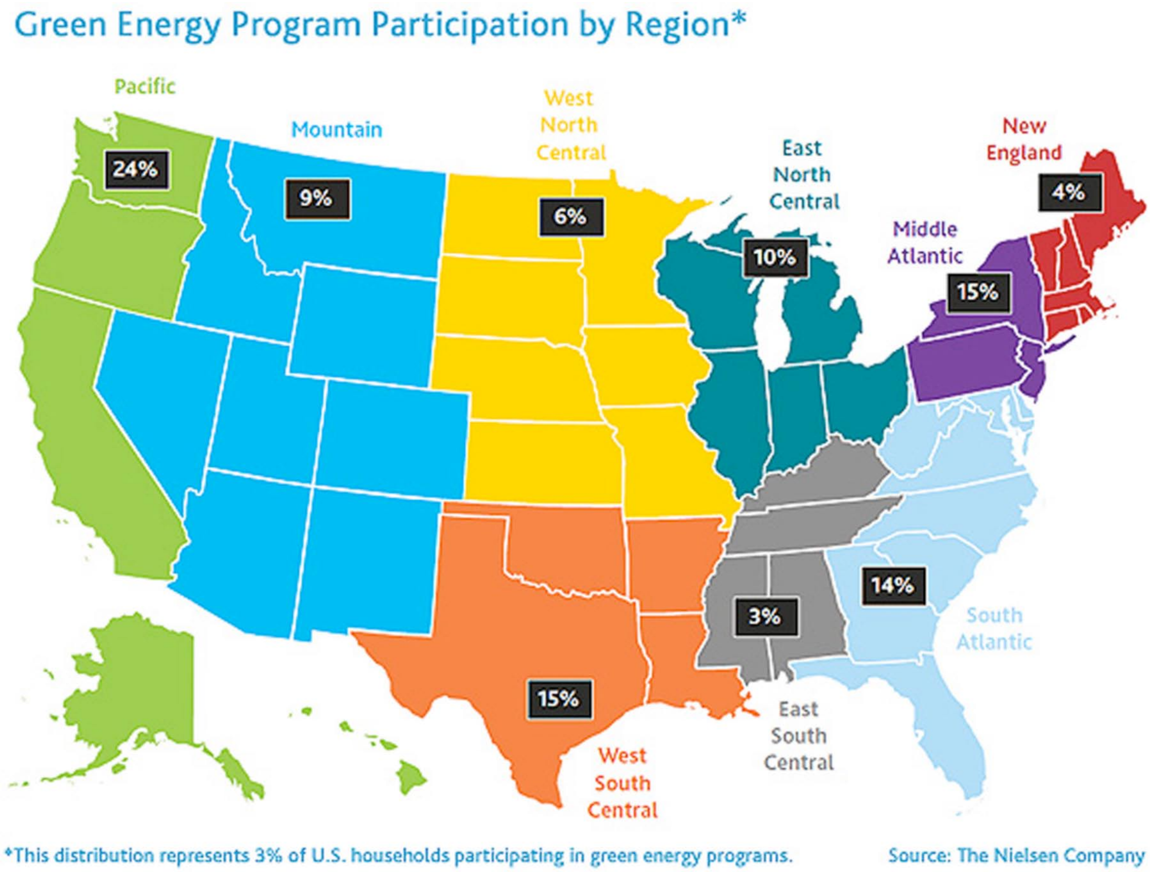

Figure 1.

Survey of 32,000 online respondents. *Green energy program participation was greatest among the higher educated and incomes over $50K. Participants also skewed younger, with 40% falling between the ages of 18-34 and 39% in the 34-54 year age range. 30% cited environmental improvement or concern as a motivating factor. New innovations spurring additional growth are products which allow consumers to monitor and manage their own energy consumption online.*

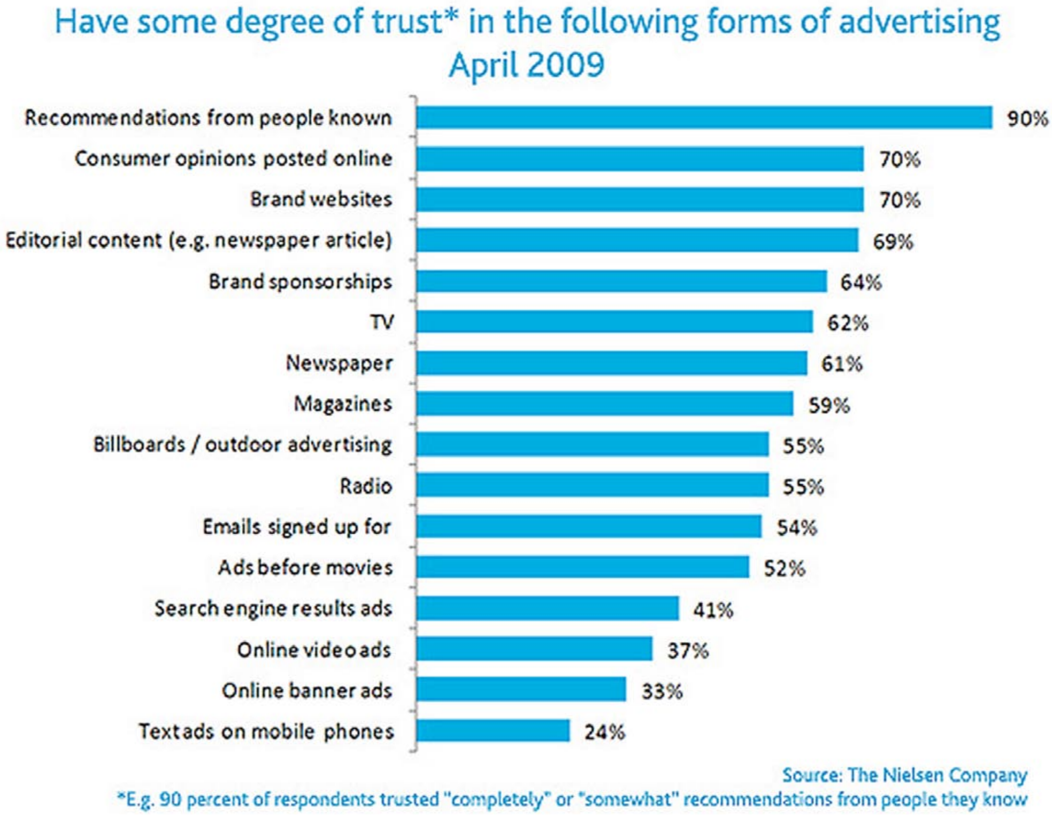

Figure 2.

Survey of over 25,000 Internet consumers from 50 countries. *Consumers look for recommendations from friends first then consult on-line reviews before they select products. Your brand website is as trusted as social network sites – important insight if your company website has not been recently updated or is not user friendly.*

Before considering price discounts and concessions, manufacturers should consider the potential down side of this strategy.

8. PRICE ROLLBACK RISKS

For manufacturers, there are many factors weighing against price rollbacks:

- A price reduction by one brand (especially the leading brand) is likely to be followed by other brands and price wars are devastating to manufacturers' bottom lines.
- Commodity market volatility means the cost of goods might go back up.
- In the years before 2007, many manufacturers did not pass on cost-of-good increases, so recent price hikes have additional justification.
- Frequently, only 70%–90% of a price rollback is passed through to consumers.

- Most items are not sensitive enough to changes in price to make a price rollback profitable.
- Trade promotion strategies and tactics must be entirely reworked.

And while price rollbacks may not be a priority for manufacturers, do the same factors hold true for retailers? Be careful what you ask for—as there are frequently overlooked downsides from the retailer's point of view:

- Manufacturer price rollbacks are market-wide. That is, they don't result in any competitive advantage for individual retailers.
- Research shows that for most categories, price rollbacks reduce category dollar sales. Category price sensitivity (usually between -0.30 and -0.70) is much smaller than item-level sensitivity. The bottom-line result is that, for most categories, price rollbacks actually lower total dollar sales. *Nielson study research.*

9. BUSINESS STRATEGIES IN DIFFICULT ECONOMIC CONDITIONS

The current recession may well constitute a "structural break" or "phase shift" in the economy, in which the previously held assumption about how it functions and economic models are open to question. If this is a structural break which will challenge conventional business models companies must consider a range of business strategies that have proven effective in prior recessionary conditions.

During any period of "creative destruction" businesses and industries will decline, some terminally, while new ideas, technologies, products and industries will emerge and become the driving forces of subsequent economic activity and growth. In this changing landscape many industry consultants believe dynamic, innovative businesses have an important role to play in leading the economy out of recession.

Recessions present businesses with a dilemma: whether to cut costs to conserve resources, or to invest in new products and processes to exploit competitor weakness. Cost containment and efficiency gains may be necessary during a recession, but such strategies are unlikely to be sufficient to pull a company through a deep recession. One strategy is ear-marking efficiency savings for exploration and the development of new business models. Manufacturers should regard the recession as an opportunity to implement strategic change that would otherwise not have occurred. Adopting a multi-faceted approach, combining cost efficiency drives with significant innovation and exploration activity, might be more likely to create, or take advantage of, market opportunities during this recession. It can be viewed as a spontaneous opportunity to identify new markets and develop products to secure a competitive advantage and to position the company for the inevitable upturn.

Due to the global nature of the recession there is risk that companies in emerging markets might be more nimble than Western companies in adapting, and thus taking market share away from current leaders. Keeping focus on what emerging markets do well, such as offering value for money, is one area companies could invest research dollars in, aimed at product or service innovation that offer better functionality at the same cost.

Companies cannot just sit back and wait for the storm to pass. Concentrating on small incremental steps is required instead of attempting a single momentous leap. Manufacturers must not just be the voice of change they must match language with efforts to implement change, or they will inevitably fail.

We must analyze, come to understand, appreciate and respond to this Tipping Point or paradigm shift we are in the midst of. To me, the way ahead is clear. To survive and ultimately thrive in the new global reality, we must:

- respond to the change in consumer buying habits and desires.
- continue to add value, functionality and technology to ceramic tile programs.
- integrate transparent, truthful environmental data to design professionals, green rating agencies and consumers.
- initiate a global co-operation and think tank forum to continuously expand and innovate new applications for ceramic tile solutions.

This noble material has been around for centuries. As I stated at the outset, I was and continue to be enamored by it. The past quarter century of ceramic tile production has been one of exponential and exciting growth. My prescription for the survival and ultimate success of our industry is to focus on what the future holds, visualize it and respond. In simple terms we need to create our own destiny.

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